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Editorial.....

You will be happy to know that we have entered the fourth year of publication of IJMER, since its inception in April 2012. Focusing on many interdisciplinary subjects, the published papers are spreading the knowledge with fervent hope of upholding the holistic approach. With all my heart, I reiterate to echo my sincere feelings and express my profound thanks to each and every valued contributor. This journal continues to nurture and enhance the capabilities of one and all associated with it.

We as a team with relentless efforts are committed to inspire the readers and achieve further progress. Aim is to sustain the tempo and improve. We acknowledge with pleasure that our readers are enjoying the publications of Sucharita Publishers. We solicit to receive ideas and comments for future improvements in its content and quality. Editor – in-Chief explicitly conveys his gratitude to all the Editorial Board members. Your support is our motivation. Best wishes to everyone.

Dr.K.Victor Babu
Editor-in-Chief

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FOCUS ON CLOZAPINE: REVIEW ON USES AND SIDE EFFECTS

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Introduction

Clozapine is an atypical antipsychotic that is used most commonly in the treatment of schizophrenia. Sandoz pharmaceutical company first introduced clozapine in 1961 and its trials began in 1972. But Clozapine was withdrawn from the market in 1975 as it caused agranulocytosis that lead to death in some patients (Healy D., 2004). In 1989, clozapine again made its way to the market after demonstrating its effectiveness in treating treatment-resistant schizophrenia (Kane J. et al., 1988; Wallis, C., & Willwerth, J. 1992). Clozapine was allowed by the Food and Drug Administration (FDA) for treatment-resistant schizophrenia with a regular check of white blood cells and absolute neutrophil counts.(TEVA Clozapine Patient Registry,). FDA also declared five black box warnings for using clozapine which were agranulocytosis, myocarditis, seizures, "other unfavorable cardiovascular and respiratory effects", and "increased mortality in older patients with dementia-related psychosis". In 2002, the FDA approved clozapine for decreasing the risk of suicidal behavior in patients with schizophrenia (Clozaril (Clozapine) drug description, 2008). Clozapine has exhibited better efficacy in relieving the positive and negative symptoms in treatment-resistant schizophrenic patients than any other traditional antipsychotic drug. It causes minimum extrapyramidal symptoms (EPS) and has little effect on prolactin. But as mentioned above this drug has been underutilized by the physicians due to uneasiness on the part of doctors to manage its side effects mainly agranulocytosis.

Although clozapine is approved only for the use of treatment-resistant schizophrenia, some clinicians have noted a useful response in schizoaffective disorder patients (Panteleeva,G.P. et al., 1987; Gudelsky, G.A. et al., 1988). Clozapine can be used as an adjuvant in the treatment of manic-depressive disorder patients who do not respond to lithium or other mood-stabilizing treatment medications. There are case reports of treating psychosis or severe agitation as well as extrapyramidal symptoms or tremors in patients with



Parkinson's disease (Scholz E, Dichgans J., 1985; Pakkenger, H., Pakkenberg, B., 1986; Friedman, J.H., Lannon, M.C., 1989). There are many other uses of clozapine seen in other psychiatric as well as neurological disorders.

Mechanism of action

There have been extensive studies on the clinical outcome of antipsychotics, but the mechanism of action of these drugs is still not fully understood. Dopamine (DA) and specifically D2 receptor neurotransmission has been the mainstay of antipsychotic drugs. But other receptor types may also come into action when it comes to the clinical effects and actions of these drugs (Kinon, B.J., Lieberman, J.A., 1996). The mechanism of action of the conventional antipsychotics is pure D2 antagonism. But the atypical antipsychotics have interactions with many receptors that include serotonin 5HT_{2A} antagonism coupling with D2 antagonism, rapid dissociation of D2 antagonism, D2 partial agonist actions (DPAs) and full or partial agonism at 5HT_{1A} receptor (2). Therefore, the major differences between conventional or typical antipsychotics and atypical antipsychotic drugs have been in their potency and their side effect profile. Clozapine is the first antipsychotic compound with increased potency and less extrapyramidal side effects (Kinon, B.J., Lieberman, J.A., 1996). It is a dibenzodiazepine derivative with low affinity for dopamine D1 and D2 receptors, comparatively high affinity for D4 receptors and high affinity for serotonin (5-HT) subtypes 2A, 2C, 6 and 7, histamine H1 receptors and muscarinic acetylcholine receptors (Julian, N., et al., 2009). But the discussion about clozapine's affinity for D1 and D2 receptors remains open. Clozapine exhibited similar antagonist properties to Haloperidol in the functional tests. Unlike conventional antipsychotics, Clozapine has shown not to increase the density of striatal dopamine D2 receptors but has proved that it is a weak D2 receptor antagonist (Dziedzicka-Wasylewska, M., et al., 2008). The small incidence of EPS associated with Clozapine is due to its receptor binding profile, particularly the low D2 occupancy and the high number of serotonin 5HT_{2A} receptors being occupied (high 5HT_{2A}/D2 affinity ratio) (Julian, N., et al., 2009). Also the initial PET and PECT studies showed that the D2 occupancy level of clozapine varied between 20-67% only, as compared to the level suggested for classical antipsychotics (65-70%) (Magdalena, N., Lars, F., 2011). Clozapine is found to have even the lowest D2 occupancy levels when compared to other drugs of the same atypical group, such as Risperidone (70-80%) (Nyberg, S. et al., 1999; Magdalena, N., Lars, F., 2011), Aripiprazole and Olanzapine (60-80%). Thus making it even safer in terms of EPS than other drugs of the same group. The Clinical Antipsychotic Trials of Intervention Effectiveness (CATIE) phase 2E also compared the effectiveness of clozapine (open-label treatment) and other atypical antipsychotics (double-blind treatment with olanzapine, quetiapine, or risperidone) in chronic schizophrenic patients, and it was concluded that clozapine may have superior anti-depressive effects versus quetiapine in chronic schizophrenia with or



without MDE whereas it may have similar effects with olanzapine and risperidone (Shinichiro, N et al., 2015). Studies have also shown that lack of increase in plasma prolactin (PRL) levels with clozapine suggests that clozapine is not a potent D2 receptor blocker in human subjects (Meltzer, H.Y., 1989). Therefore, clozapine has been achieving its unique potency in lessening the positive and negative symptoms without EPS or tardive dyskinesia, with no effect on plasma PRL concentration mainly due to the effects on dopaminergic and serotonergic neurotransmission which could be the “final common pathway” for its multiple clinical benefits (Meltzer, H.Y., 1989). The D4 dopamine receptor antagonism is also accounted for the unique effect of clozapine which has a greater affinity for D4 than for D2/D3 (Magdalena, N., Lars, F., 2011). Amongst the other neurotransmitter interactions, the serotonin-blocking property of clozapine along with D2 antagonism also plays a critical part in its action and as previously discussed, in lowering EPS (Meltzer, H.Y., 1989). Histamine has also been found to be involved in its atypical profile. Clozapine, along with its active metabolite N-desmethyl clozapine (NDMC) interacts with H1, H2, H3 and H4 receptors, substantiating its atypical profile. This metabolite (NDMC) is also involved in causing side effects such as sedation and weight gain. So Clozapine interaction with histamine receptors may be the cause of its high potency as compared to other atypical antipsychotics, as well as its high tendency to cause the side effects (Humbert-Claude, M. et al., 2012).

The use of clozapine in clinical practice suggested that it is superior to the conventional neuroleptic drugs in some schizophrenic patients (Honigfeld et al. 1984). These kinds of claims were also made for other antipsychotic drugs, which have never been satisfactorily verified. However, there is enough convincing evidence that proves clozapine is a more effective antipsychotic than typical neuroleptic drugs. Retrospective studies support the greater efficacy of clozapine in treatment-resistant schizophrenia (Juul Povlsen et al. 1985; Kuha and Miettinen 1986; Lindstrom 1988; Meltzer, H.Y., 1989). But some studies showed that clozapine differs mainly in terms of its side effects from other atypical antipsychotics. The side-effect profile could be the key in the selection of treatment depending on the clinical situation and patient's preferences (Lobos, C.A. et al. 2010).

USES OF CLOZAPINE

Treatment Resistant Schizophrenia

Treatment resistance is a major problem when it comes to suboptimal usage of Clozapine for treating Schizophrenia (Meltzer H.Y. 2012; Stahl S.M., 2014; Warnez and Alessi-Severini, 2014). According to the International Psychopharmacology Algorithm Project(g), treatment-resistant schizophrenia is defined as; 1). No period of normal functioning in the past five years. 2). No previous response to at least two antipsychotics of different chemical classes for at least a period of 4-6 weeks at doses 5 mg /day risperidone or ≥ 400 mg



equivalents of chlorpromazine. 3) Moderate to severe psychopathology, particularly positive symptoms: suspiciousness, conceptual disorganization, hallucinatory behaviors and delusions.

Treatment-resistant schizophrenia (TRS) is an inadequate response to sequential treatment with two different antipsychotics at adequate dose, duration, and compliance (Kane et al., 1988). They also highlighted the strategies for managing treatment nonresponse which included increase in the dose, addressing non adherence and either augmenting the original medication or switching to another medication. Clozapine has demonstrated to be significantly effective in patients with treatment resistant Schizophrenia. The benefits of Clozapine therapy outweighs the risk of agranulocytosis in such patients (Kane J.M., 2012). (Braga and Petrides 2005) demonstrated that a combination of ECT and Clozapine was effective in patients with Schizophrenia especially those resistant to treatment. Petrides G in 2015, demonstrated that about 70% of patients with treatment-resistant schizophrenia do not respond to clozapine and that augmentation of clozapine with ECT is a safe and effective treatment option (Petrides et al., 2015). Grover et al (2015) supported that ECT was an effective augmentation strategy for patients with refractory Schizophrenia treated with Clozapine. Kupchik et al. (2000) reviewed 36 psychiatric patients who were treated with a combination of ECT and Clozapine; demonstrating that the combination treatment was safe and effective with it getting entitled a therapeutic option in treatment resistant Schizophrenia. Kho et al. (2004) conducted an open label study demonstrating ECT to be an effective adjunctive treatment in Clozapine nonresponders suffering from Schizophrenia. The most commonly preferred treatment practice is long-term combination polypharmacy before starting clozapine resulting in long delays before commencing it. (Gören et al., 2013; Taylor et al., 2003; Harrison et al. 2010; Howes et al., 2012a). Some clinicians also try other tactics by increasing the doses of other antipsychotics before prescribing clozapine with an average delay of 47.7 months in using clozapine [Gallego et al. 2012; Howes et al., 2012b]. Studies have shown that most benefitted patients with better response to clozapine were of younger age group and had a trial of fewer antipsychotics before starting clozapine [Üçok et al., 2015]. Therefore, Clozapine might be considered in younger age groups as well as before starting any trials of other antipsychotics, but should be strictly monitored for its adverse effects and be prescribed only at approved institutes that are under the Clozapine Patient Monitoring Service (CPMS) registration.

Suicidality in Schizophrenia

Suicide is one of the common causes of premature deaths in patients with schizophrenia (Cohen, L.J. et al., 1990). Schizophrenic patients have around 50% lifetime risk of suicide attempts and 9% to 13% lifetime risk for completed suicide (Meltzer, H.Y., Fatemi, H., 1995; Nyman, A., Jonsson, H., 1986). In the United States, among the general population the lifetime risk for suicide is



approximately 1% when compared to patients with schizophrenia (Caldwell, C.B., Gottesman I.I., 1997). Many studies show that typical antipsychotic medications have no effect on the incidence of suicide and suicidal ideation but, clozapine may reduce suicidal behavior in schizophrenic patients (Axeleson, R., Lagerkvist-Briggs, M., 1992; Winkur, G., Tsuang, M., 1975; Johns, C.A. et al., 1986). In a study, 88 neuroleptic-resistant patients were treated with clozapine for 0.5 to 7.0 years, and the result demonstrated an increase of non-suicidality from 53% to 88% (Meltzer, H.Y., Okayli, G., 1995]) There are many retrospective studies that prove decrease in mortality among schizophrenic patients attributable to the use of clozapine. In the analysis of clozapine registry data from the United Kingdom and the United States support the fact that suicide completion rate in treated patients with schizophrenia reduced substantially (Reid, W.H. et al., 1998 ; Munro, J. et al., 1999). Also in a retrospective study of 295 treatment-resistant outpatients (Most of them were African Americans) with clozapine treatment, there was a decrease in suicidality during continuous drug administration (Reinstein, M.J. et al., 2002).

The above studies provide enough evidence for the ability of clozapine to reduce suicidal behaviors. It is also vital to differentiate the effect on suicidality from other atypical antipsychotics (for e.g. Olanzapine, risperidone, quetiapine fumarate, etc.) considering the safety profile of these drugs as compared to clozapine. So, a two-year long randomized, parallel group study was designed to compare the effect of clozapine vs. olanzapine in schizophrenia patients and schizoaffective disorder patients. Clozapine therapy showed a significant reduction in suicide behavior as compared to olanzapine treatment (Meltzer, H.Y. et al., 2003).

Mania with Psychosis

The conventional treatment for manic episodes is the use of lithium, anticonvulsants, or neuroleptics, either alone or in combination (Goodwin, F.K. et al., 1990). Up to 40% of bipolar patients fail to respond to lithium, and nearly 80% of patients with rapid cycling bipolar disorder are resistant to lithium (Dunner, D.L. et al., 1974; Kukopulos, A. et al., 1980). Severe mania shows inadequate response to carbamazepine (Small et al., 1991) or valproate (Calabrese, J.R. et al., 1993).

Typical neuroleptics can be useful in these cases (Goodwin, F.K. et al., 1990; Kafantaris, V. et al. 2001), but long-term treatment enhances the risk of extrapyramidal side effects and tardive dyskinesia. Newer antipsychotics, commonly referred to as atypical antipsychotics (Meltzer, H.Y. et al., 1989) such as risperidone, clozapine, olanzapine, ziprasidone, and quetiapine have shown significantly fewer extrapyramidal side effects and tardive dyskinesia in adults (Chouinard, G. et al., 1993; Arvanitis, L.A. et al., 1997; Kane, J.M. et al., 1988; Tollefson, G. et al., 1997; Daniel, D.G. et al., 1999) as well as in younger age group victims (Kumra, S. et al., 1996; Masi, G. et al., 2001; Armenteros,



J.L. et al., 1997). Many reports suggest that atypical antipsychotics can decrease the bipolar disorder symptoms in adults who do not respond adequately to mood stabilizers (Ghaemi, S.N. et al., 1999). Atypical neuroleptics, such as risperidone and clozapine, have been suggested as an alternative to treatment-resistant manic patients (The Expert Consensus Panel for Bipolar Disorder, 1996; Kimmel, S.E. et al., 1995; McElroy, S. L. et al., 1991; Calabrese, J.R. et al., 1996). In an open-label study, 14 out of 22 subjects continued taking clozapine for a minimum of 10 out of 12 weeks. From the entire group, mean improvements of 56.6%, 56.7%, and 39.1% were seen on Young Mania Rating Scale, Brief Psychiatric Rating Scale (BPRS) and Clinical Global Impressions (CGI) respectively. Among 17 out of 22 subjects, 77.3% had at least 20% improvement in the scores on all three scales. These findings suggest that clozapine is an effective agent for patients with treatment-refractory psychotic mania. (Green, A.I. et al., 2000)

Despite the use of clozapine being limited by its side effect profile, its effect on mania and mood stabilization are described both in the acute and maintenance phase of the treatment (Calabrese, J.R. et al., 1996; Zarate, C.A. et al., 1995).

Clozapine and psychosis in Parkinson's disease (PD)

Many open-label trials and double-blind placebo-controlled trials have been conducted that showed its tolerability and efficacy in PD patients. A study (Factor, S.A., 1995) reported a comprehensive review of the first 16 publications of clozapine in victims with PD with psychosis. The dose ranged from 6.25 mg every other day to 400 mg/ day with most patients adequately treated with less than 100mg/day.

Out of 136 patients, 111 (82%) patients had very few symptoms or complete resolution of symptoms. 18% of patients stopped taking clozapine because of lack of response or had side effects from it. The most common side effects encountered were sialorrhea (26%), sedation (21%), delirium (21%), and orthostasis (11%).

One patient with PD presented with agranulocytosis (Greene, P. et al., 1993). Out of 36 patients, five patients showed worsening of motor symptoms. Four out of five were treated with more than 100 mg/day. The improvement of motor symptoms in some patients was observed.

Adequate control of psychosis with clozapine let the physicians adjust the dopaminergic medications to control motor symptoms without significant exacerbation or recurrence of psychotic symptoms.

Patients who took clozapine showed long-term efficacy and some remained free of psychosis for three years. Despite the drug being efficacious, some patients had adverse effects such as progression to dementia and the side effects of sedation and delirium. For unknown reasons, some cases reported a sudden loss of effectiveness (referred to as "therapeutic plunge ") (Greene, P., 1995). Patients can experience therapeutic benefit at a low dose of 6.25



mg/day. At higher doses, PD patients reported sedation, which may explain the exaggeration of motor symptoms.

In 1999, two randomized, double-blind, placebo-controlled trials were done on PD patients who took low-dose clozapine. In the US trials, four different psychosis scales showed considerable improvement in symptoms with no decline in motor function. Patients had noticeable improvement in tremors with it. Many patients experienced complete resolution of psychotic symptoms in just one day, and most of the them had significant improvement in one to two weeks. Among them, only one patient discontinued the treatment due to decline in WBC count (Friedman et al. 1999)

The trial in France reported similar results. A meta-analysis summarized an average improvement of 85% with suitable tolerance. In an analysis of longitudinal data (26 months), out of 60 patients 59 enrolled in the US trial revealed that 25% died, 42% were placed in nursing homes. 8 patients who were not demented (MMSE > 25) were having dementia at the follow-up (Friedman, J.H., Factor, S.A., 2000).

The only double-blind controlled trial of clozapine in treating psychosis in PD is the only study with inefficient results (Wolters, E.C. et al., 1990). Unfortunately, this study was conducted before much knowledge was acquired in using clozapine in PD. The initial dose used for the study was 25 mg, and it was increased by the same amount daily. This dosing schedule is now considered excessive. Other behavioral characters of PD that responded favorably to clozapine were hypersexuality, depression, anxiety and sleep fragmentation (Trosch, R.M., 1996; Factor, S.A., Brown, D., 1992).

Motor Features:

Among all the features of PD, tremors have been most widely studied, and they seem to respond less predictably to antiparkinsonian drugs (Findley L.F, 1988, Boshes B., 1976). Although it is anticipated that clozapine does not exacerbate PD symptoms, surprisingly there has been an improvement in motor symptoms. A study (Fisher et al. 1990) administered clozapine in 12 patients with tremor refractory to dopaminergic medications at doses 6.25-100 mg/day observing moderate to marked improvement in all 12 patients treated. (Jansen, 1994) Studied 23 patients with PD resistant to other anti-PD medications with clozapine. The doses were at a range of 6.25-37.5 mg/day. Out of 23 patients, 17 (73%) showed improvement in tremors lasting for 21 months [measured by Unified Parkinson's Disease Rating Scale (UPDRS) tremor scores]. A study compared bztropine with clozapine in a double-blind fashion in 20 PD patients with tremor (Friedman et al., 1994). Patients were given both the treatments for six weeks with a washout period of 2 weeks in between. Both of these drugs improved tremors significantly with neither being superior and were not well tolerated with clozapine being more beneficial in some patients with refractory tremors.



Clozapine's mechanism of action for the tremor is unknown. It was observed that clozapine improves tremors in a majority of the patients, completely treats PD tremors in some patients and helps to some extent in others (Koller W.C., 1987). Clozapine is a potent central antimuscarinic agent. It has very few peripheral effects and does not cause blurred vision, dry mouth, constipation or urinary retention (Baldessarini et al., 1991).

The fact that most of the patients who responded to clozapine failed trials with anticholinergics (Pakkenberg et al., 1986; Friedman et al., 1990; Fisher et al., 1990; Jansen, 1994) with greater potency than clozapine which implies that anti-tremor effect is not mediated by acetylcholine-blocking actions alone. Other features like gait difficulty and bradykinesia also improved when clozapine was given to patients with psychosis in PD (Friedman and Iannoni, 1989; Roberts et al., 1989).

A study reported that clozapine 50 mg/day treated orofacial dyskinesia in one patient (Factor et al., 1992). Other studies assessed the effect of motor fluctuations and dyskinesia in general (Bennett et al., 1993; Bennett et al., 1994). They conducted an open-label trial with 400 mg/day of clozapine. The evaluation of the patients was done primarily based on their diaries. First six patients were evaluated initially (Bennett et al., 1993) and were monitored for four months. After that, a follow-up was conducted involving 13 patients (including the original six) and were monitored for a median of ten months (range, 3-21 months). These patients were given clozapine 12.5 mg daily and were increased by 25 mg/week to a highest tolerated dose of 400 mg/day. Out of 11 patients, three failed to tolerate clozapine. The rest of the ten patients required clozapine maintenance at 75-300 mg/day, with a mean of 173 mg/day. The authors observed a two to threefold lowering in dyskinesias and a twofold increase in "on" time with clozapine at doses less than 250 mg/day and mostly in 75-100 mg/day range. Bennett et al. (Bennett et al., 1993; Bennett et al., 1994) thought that the dyskinetic effect must be due to the D1-antagonist activity in the nigrostriatal dopamine system. The main side effects were sialorrhea, orthostatic hypotension, sedation, and an "amotivational" state.

Dystonia is also a component of PD that has shown improvement in four patients who were on clozapine (Trosch et al., 1994). Two patients amongst them had anterocollis, which was not considered to be a complication due to drug treatment as the neck flexion did not resolve or fluctuate when PD medications were altered. One of these patients was not able to tolerate even 1.5 mg of bztropine per day due to confusion and dry mouth. However, on 25 mg/day of clozapine tremor and neck flexion improved significantly. The second patient improved with 12.5 mg clozapine daily. The remaining two patients had levodopa-induced dystonia which improved with clozapine. Patients did not experience typical adverse effects of Clozapine. The impact on dystonia in patients with PD is however recognized to be less consistent (Trosch et al., 1996).



Sensory Features:

PD patients can also present with sensory symptoms such as internal tremor, akathisia, and various pain syndromes. Out of these, two symptoms that have been treated with clozapine are nocturnal akathisia and pain. Linazasoro et al., (1993) studied nine PD patients with nocturnal akathisia, treating them with clozapine at doses 12.5 to 100 mg daily. Five of the patients had associated confusion, and four had akathisia in an "off" state. Akathisia improved in all of the patients. Both symptoms resolved simultaneously.

Juncos studied the effects of clozapine in seven patients with PD with "cramp-like" pain without dystonia in a 2-year open label trial. Out of seven patients, pain improved in six patients by 260%. One patient stopped the medication because of sedation. The dosages were in a range of 25 to 75 mg (Juncos J.L., 1996).

Clozapine and substance abuse

Clozapine is helpful in decreasing the use of illicit drug use in schizophrenic patients. There is a high prevalence of cigarette smoking seen in patients with schizophrenia. Approximately 80% of the patients diagnosed with schizophrenia are involved in smoking (Hughes, J.R. et al., 1986). A study states that smoking was associated with lack of therapeutic response to the typical antipsychotic haloperidol (McEvoy, J.P., et al., 1991). So clozapine may be a good alternative in patients who are resistant to typical antipsychotics (Kane, J. et al., 1988).

Alcohol use disorder is three times more common in patients with schizophrenia than the general population (Drake, R.E., Mueser, K.T., 1996) and cannabis use disorder is ten times more common in patients suffering from schizophrenia (Linszen, D.H. et al., 1994). Both of these substances contribute to the morbidity of schizophrenia by increasing the relapse rate, noncompliance with the treatment, increased hospitalization, and poorer overall functioning (Abram, K.M., Teplin, L.A., 1991; Bartels, S.J. et al., 1991; Brady, K. et al., 1990; DeQuardo, J.R. et al., 1994; Gupta, S. et al., 1996; Knudsen, P., Vilmar, T., 1984; Negrete, J.C. et al., 1986; Owen, R.R. et al., 1996; Peralta, V., Cuesta, M.J., 1992; Reigier, D.A. et al., 1990; Richard, M.L. et al., 1985; Smith, C.M., et al., 1997; Swanson, J.W. et al., 1990; Treffert, D.A., 1978). The typical antipsychotics that have been the mainstay of treatment for schizophrenia for the last 50 years are of inadequate value in restraining alcohol or cannabis use in these patients (Albanese, M.J. et al., 1994; Buckley, P. et al., 1999; Drake, R.E. et al., 2000; Zimmet, S.V. et al., 2000). However, there are case reports suggesting the use of atypical antipsychotic clozapine in limiting alcohol, marijuana and other illicit drug use in 'dual diagnosis' patients with schizophrenia.

In a retrospective survey (Zimmet, S.V. et al., 2000) of 43 patients, 26 with schizophrenia and 17 with schizoaffective disorder associated with comorbid substance use disorder were on treatment with clozapine with a mean time of



3.29 years. 15 out of these 43 patients were not active substance users at the time of beginning of the study. Out of the 28 patients, 12 used alcohol, 2 used marijuana, and 14 used more than one substance. Out of the 12 alcohol abusers, 9 showed a significant decline (83%) in the intake of alcohol, one patient showed some decrease and 2 showed no change. 2 Marijuana users significantly reduced the consumption of marijuana. Out of the 14 polysubstance users, 11 showed a marked reduction in the substance use.

The mechanism by which clozapine works to control substance use in these patients is not clear. But it can be due to its effect on negative symptoms (Khantzian, E.J., 1997), lack of extrapyramidal system (EPS) effects (Siris, S.G., 1990), or its unique action on the dopamine-mediated mesocorticolimbic system (Green, A.I. et al., 1999). A retrospected study was conducted in 41 patients who were either treated with risperidone (n=8) or clozapine (n=33) for one year. Patients treated with clozapine show significantly higher rates of abstinence than risperidone (54% vs. 13%) (P= 0.05)(Green, A.I. et al., 2003).

As a conclusion, clozapine displays a decrease in the use of illicit drugs among schizophrenic patients. To prove this further, we need more prospective studies to confirm the use of clozapine in substance abusers suffering from schizophrenia.

Tardive dyskinesia (TD)

Tardive dyskinesia (TD) is a late complication caused by neuroleptics that occurs in susceptible individuals. The onset of TD is most probably due to its strong D2- antagonistic action, which is the main mechanism of antipsychotic medications. But other possible hypotheses are also considered (Khot, V. et al., 1992).

The classic syndrome in TD is oral-buccal-lingual-masticatory movements. However, other different variants of movement disorders that include akathisia, dystonia, tics and myoclonus are also seen (Van Harten, P.N., 1998). These movement disorders are a serious public health problem because of their potential permanence and disability. The rise of TD has led to a more cautious use of neuroleptics and a search for medications with a lesser risk of causing such problems. Clozapine has been of interest concerning TD because it is thought to carry no or minimal risk of the same and it may have a therapeutic effect against preexisting TD. Gerlach (Gerlach, J., 1991) suggested that the mechanism of action which account for clozapine's low rate of TD include its weak D2-receptor blocking capacity along with a D1-receptor antagonistic action. Clinical trials assessing the effectiveness of clozapine in psychosis not only proposed that the drug is less likely to cause TD, but also showed that it might be having a therapeutic potential in treating an already existing TD(Casey D. E., 1989).

In a more recent study, (Lieberman, J.A. et al., 1991) studied 37 patients being treated for psychosis with clozapine, out of which 30 had TD. Among them, 16



(43%) had a reduction in Abnormal Involuntary Movement Scale (AIMS) of > 50%, and 34% had a resolution of their TD within two years of clozapine treatment. It was seen that the mean TD scores declined significantly within the first 12 weeks and then continued to remain stable without worsening and recurrence of TD over the following 33 months.

Tamminga et al. (Tamminga, C.A. et al., 1994) studied 32 patients with moderate to severe TD treated in a blinded protocol with randomization to clozapine and placebo or benzotropine and haloperidol. Patients were treated with haloperidol for 1-6 months and then they were withdrawn for 2-4 weeks for evaluation of TD. After that, all patients were started on clozapine for 12 months on a mean dose of 294 mg/day, with a washout period of 1 month. At the end of treatment period, all patients receiving clozapine showed an improvement in TD as compared with haloperidol group which did not demonstrate any improvement with the clozapine group showing improvement after four months of therapy. Interestingly, the haloperidol-treated group showed worsening dyskinesias during drug withdrawal period after 12 months of treatment whereas no such symptoms were seen in the clozapine-treated group.

There are three possibilities that are discussed in the literature explaining the possibilities of clozapine response on TD (Casey, D.E., 1989, Tamminga, C.A. et al., 1994, Lieberman, J.A. et al., 1991). The first possibility is "masking" of the symptoms as seen with conventional antipsychotics. The decrease in symptoms during the initial treatment period seen in few studies may be consistent with "masking"; however, the absence of reemergence makes this a lesser possibility (Lieberman, J.A. et al., 1991). There are a few studies indicating that improvement did not occur until months after starting therapy, and this can also be inconsistent with the notion of suppression (Tamminga, C.A. et al., 1994). The second possibility is of spontaneous reversal of TD after receiving clozapine. TD can be attenuated or reversed after long neuroleptic-free periods through the absence of D2 -receptor blockade and potential reversal of supersensitivity (Casey, D.E., 1989, Tamminga, C.A. et al., 1994). This is also referred to as "passive" therapeutic effect (Lieberman J. A. et al., 1991). Long-term treatment with clozapine could produce just that scenario. Finally, clozapine may also have an "active" therapeutic effect that acts to reverse any neuronal or receptor changes caused by conventional neuroleptics (Cole, J.O. et al., 1980). This mechanism may result in a decrease in TD in a time-related, dose-dependent fashion. Only well designed and carefully planned controlled trials could clarify this issue. The reports of responsiveness of TD to clozapine include various TD variants in their patient population.

Seven out of 30 patients evaluated by Lieberman et al. (Lieberman, J.A. et al., 1991) had TD. Four out of 30 had the greatest improvement. Those four patients represent a selective group that had the greatest benefit from clozapine therapy. Since then various case reports have been published



providing evidence of efficacy of clozapine but still the effect of clozapine on tardive dystonia remains unclear. The reason could be a lack of controlled trials.

Carroll et al. (Carroll, B.J. et al., 1977) reported a case of severe TD presenting with truncal dystonia who had no improvement with clozapine. (Caine, E.D. et al., 1979) reported two patients, one with torticollis and other with generalized dystonia who failed to respond to clozapine.

Friedman (Friedman, J.H., 1994) reported three patients having psychosis with tardive dystonia were treated with clozapine. One among them had blepharospasm. Treatment with clozapine decreases the psychosis as well as blepharospasm to an extent that the patient was transferred to a group home after two decades in a state hospital. Another patient suffered from dose-limiting torticollis while on haloperidol for continued psychosis. Changing the medication from haloperidol to clozapine resulted in complete resolution of psychosis and dystonia. The third patient had a history of severe limb and truncal dystonia. After treatment with clozapine for 1 year, the psychosis improved, but movement disorder did not. When reserpine was given along with clozapine, the dystonia improved dramatically. In the past, reserpine has caused severe depression and was not tolerated by the patient.

The above discussion highlights that clozapine is associated with a decreased risk for TD as compared to other neuroleptics. Also, there has been enough evidence to suggest that clozapine has an active therapeutic effect against preexisting TD, tardive dystonia and other possible variants of TD. For this reason, clozapine seems to be a good alternative for patients suffering from above-mentioned movement disorders.

Borderline Personality Disorders (BPD)

Borderline personality disorders (BPD) are characterized by unstable interpersonal relationships, impulsive self- image, oftentimes demonstrating self-injurious behaviors. Studies have shown that Clozapine may be a beneficial treatment option for BPD especially in controlling symptom severity, psychotic symptoms, impulsivity and self-mutilation. Under the effect of Clozapine, the days of inpatient observation has been remarkably reduced and has resulted in an improvement in overall functioning (Beri A and Boydell J. (2014). Its effect in adults are markedly observed, however there are not enough studies to demonstrate its effect in adolescents with BPD requiring further investigations (Argent and Hill, 2014). As discussed earlier, self-mutilation is one of the symptoms associated with Borderline Personality disorder. Studies on patients with BPD and persistent psychoses have shown that Clozapine has been effective in diminishing the episodes of violence towards other patients (Chengappa et al., 1999). Significant reductions in incidents of self-mutilation (restraint), isolation and the need to administer p.r.n. antianxiety medications and attempts of injury to ancillary staff have been observed. These subjects received higher levels of hospital privileges, and



their GAF scores nearly doubled following clozapine treatment making them candidates for possible outpatient follow up; thus reducing inpatient hospitalizations. Psychotic symptoms in BPD are generally treated with neuroleptic medications with possible acute side effects like dystonias. Clozapine lacks the neuroleptic side effects of the antipsychotics and has shown to reduce psychotic symptoms (Benedetti et al., 1998). Vohra A.K., (2010) demonstrated the effectiveness of Clozapine in young females with severe BPD without significant psychosis who had repeated and prolonged hospitalization and failure to improve with psychotropic medications. Beri A and Boydell J. (2014) and Chengappa et al. 1999) suggested that Clozapine has a beneficial treatment option for BPD with controlling severity of psychotic symptoms, impulsivity and self-mutilation. The level of aggression has been significantly found to be reduced in BPD patients with a history of self-mutilating behavior (Zarzar T and McEvoy, (2013). Additionally, Brown et al. (2014) demonstrated the use of Clozapine in antisocial personality disorder. Clozapine has demonstrated a significant improvement in comorbid OCD symptoms in patients with BPD (Steinert et al. 1996).

Borderline-Intellectual-Functioning and Mentally Retarded Schizophrenia

Despite the lack of empirical evidence, Clozapine has been increasingly prescribed among individuals to treat behavioral problems in patients with borderline intellect (Singh et al., 2010). Sabaawi et al. (2006) put forth guidelines for the use of Clozapine in individuals with developmental disabilities after reviewing the limited literature and clinical cases pertaining to the same. This highlights the need for more studies and insight for the use of clozapine in borderline intellectual functioning patients. Cohen and Underwood (1994), illustrated that Clozapine is useful and well tolerated in the treatment of aggression in patients with moderate-to-profound mental retardation. A case report illustrating the new onset of myocarditis in an adolescent patient with Clozapine on intellectual disability has been demonstrated, (Pitschel et al., 2009) questioning whether the risks outweigh the benefits of Clozapine use among adolescent patients with intellectual disability. Duggan et al. (2004) conducted a randomized controlled trial in subjects with schizophrenia and learning disabilities ($IQ < / = 70$) for more than a month and found inconclusive results. On the contrary, (Pitschel et al. 2009) demonstrated that individuals with schizophrenia and borderline intellect can be greatly benefitted from psychoeducational group participation.

Essential Tremors (ET)

Essential tremor (ET) is a movement disorder which is characterized by postural and kinetic tremors; often causing functional and emotional disabilities. Presently there is no cure available for essential tremor nor there are any medications that can slow the progression. Treatment of essential tremor is suggested if the tremor causes functional disability. A clinical study including 25 tremor patients who were treated with Clozapine, demonstrated



vast improvement in approximately less than 1/3rd of the subjects with it (Pakkenberg and Pakkenberg, 1986). Clozapine has been labelled as a second-line therapy for treatment of essential tremors after Propranolol, Primidone and Topiramate.(Zappia et al., 2013). Ceravolo et al demonstrated the use of Clozapine for control of essential tremors in drug-resistant ET cases(Ceravolo et al., 1999) . As per his clinical study, a single dose of Clozapine effectively curbed the tremors in 13 out of the 15 patients who had drug-resistant ETs. He also demonstrated a significant reduction in the tremors in chronic Clozapine users without development of tolerance and clozapine induced hematologic side effects indicating the use of clozapine in drug resistant ETs before resorting to neurosurgical treatment modalities.

Treatment-Resistant Psychotic Depression

Depression with Psychotic features is a challenge when it comes to management; especially in patients with other comorbidities. Psychotic features can be in the form of delusions and/or hallucinations; which can be hard to elicit due to superimposed depressive features. Wijkstra et al. (2015) stated that combination therapy with an antidepressant plus an antipsychotic is more effective than either treatment alone or placebo. Nevertheless, he highlighted the need to establish more studies regarding the same.

SIDE EFFECTS of CLOZAPINE

Clozapine has been associated with many side effects ranging from benign to potentially serious reactions which limited its use. These are particularly an issue in elder people who have coexisting medical illnesses taking other psychotropics that may interact with Clozapine in which case even mild side effects can become severe if left unaddressed.

Serious adverse effects include agranulocytosis, seizures, neuroleptic malignant syndrome. Common side effects include hypersalivation (sialorrhoea), weight gain, sedation, drowsiness, fatigue and orthostatic hypotension. Others include eosinophilia, other blood dyscrasias, delirium, Obsessive-compulsive disorder, myocarditis and cardiomyopathy, deep venous thrombosis, tachycardia and ECG changes like QT prolongation, new-onset diabetes, constipation, nausea, hepatotoxicity, pancreatitis, urinary incontinence/enuresis, tremor, headache, sweating, cataplexy, hypertension, stiffness, confusion, dry mouth, nasal congestion, hyperlipidemia, hyperglycemia and periodic paralysis.

Hematologic: Agranulocytosis is defined as granulocyte count $<500/\text{mm}^3$ and granulocytopenia is granulocyte count $<1500/\text{mm}^3$. Even though it is severe, the incidence of agranulocytosis is low ranging 1%-2%. The risk of agranulocytosis is greatest during the first three months of Clozapine administration and the risk substantially reduces after six months but does not decrease to zero(Guith, D.M., 1996). The following work up with complete blood count is done once a week after prescribing the medicine for three months and once a month after that. The pathophysiology of agranulocytosis



due to clozapine is suggested as suppression of myeloid proliferation in the bone marrow. Hematopoietic growth factors like granulocyte colony stimulating factor (G-CSF) and granulocyte macrophage colony stimulating factor (GM-CSF) are more used in the management of clozapine-induced agranulocytosis. Lithium is co-administered with clozapine to prevent neutropenia with a significant success rate. Treatment with clozapine is only started if patient's baseline WBC count is $>3,500/\text{mm}^3$. If WBC count becomes $<2000/\text{mm}^3$ or granulocyte count becomes $<1000/\text{mm}^3$, clozapine must be discontinued immediately and never be resumed due to an increased risk of recurrence of agranulocytosis (Guith, D.M., 1996). But careful re-challenge can be considered after neutropenia but not after agranulocytosis (Schuepbach, D. et al., 1998).

Eosinophilia: Production of eosinophils is influenced by interleukin 1, 3 and 5. Clozapine stimulates T-lymphocytes which increases interleukin 5. It was found that increase in eosinophils is seen followed by a decrease in the neutrophil count with clozapine treatment (Schuepbach, D. et al., 1998). Eosinophilia is also seen with other co-morbidities like myocarditis, colitis, pancreatitis, hepatitis and pleural effusion (Aneja, J. et al., 2015). One study also shows that eosinophilia is a predictor of neutropenia in patients receiving clozapine (Hummer, M. et al., 1996). WBCs should be checked for patients having neutropenia (<3500 leukocytes/ mm^3) once in every two weeks to differentiate transient neutropenia and emergence of agranulocytosis.

Cardiology: Tachycardia from clozapine occurs approximately 25%, and the heart beat increases with a mean of 10-15 beats (Hatton, J.L. et al., 2015). Tolerance is developed within 4-6 weeks. It might be due to vagal inhibition by anticholinergic properties of clozapine. Patients with symptomatic tachycardia can be treated with beta blockers but should be carefully monitored for hypotension.

Orthostatic hypotension is seen in patients taking clozapine in approximately 11-23% of cases (Testani, M., 1994). The mechanism of hypotension is attributed to the beta antagonistic activity of Clozapine. Avoidance of drugs like benzodiazepines and epinephrine which might worsen the severity is preferable. The considerable options to manage this condition would be increasing sodium intake or by adding fludrocortisone to the treatment, adequate hydration, and dose reduction if possible (Guith, D.M., 1996).

In a study, many patients following clozapine treatment had dilated cardiomyopathy. Patients with ejection fraction $<25\%$ has poor prognosis. Treatment includes immediate cessation of the drug and symptomatic management (Alawami, M. et al., 2014).

Myocarditis is a rare side effect ($>2\%$ of patients) seen most commonly within first two months of clozapine treatment with a mortality rate of 50% according to (Guith, D.M., 1996). Patients should be monitored especially during the 3rd week. Elevated CRP may be an early indicator for the development of



myocarditis (Ronaldson, k.j. et al., 2010). Clozapine-induced cardiac dysfunction might be due to increased plasma noradrenaline levels. Early recognition with prompt discontinuation of the drug is imperative (Hatton, J.L. et al., 2015). Successful rechallenge of clozapine following clozapine-induced myocarditis has been proved in one of the studies. The risk of cardiac myotoxicity is even lesser if delayed rechallenge with a gradual increase in dose of clozapine is promoted (Chow, V. et al., 2014).

ECG changes like QT prolongation are more commonly seen in patients on clozapine. It should be avoided in patients with arrhythmias and with bundle branch block as it might worsen the condition. Serial ECGs after an increase in clozapine dosage are recommended to avoid fatal arrhythmias caused by QT prolongation (Guith, D.M., 1996).

Central Nervous System: Sedation/drowsiness is the most common side effect. It is seen approximately 39% of the patients early in the treatment with clozapine, but tolerance is developed within the first few days to weeks. The sedative effects are proposed to be related to antihistaminic (H1) and anti-adrenergic (alpha1) properties of the medication (Safferman, A. et al., 1991).

Seizures are one of the uncommon side effects of clozapine but are serious. The most common type is generalized tonic-clonic seizures. The action of clozapine on mesolimbic dopamine receptors may be the reason for its epileptic properties. Seizure is a dose dependant side effect and its risk increases with preexisting seizures, high doses and rapid titration of clozapine. Prophylactic therapy is better recommended. If the daily clozapine exceeds a threshold of ~500 mg/day, valproate is the drug of choice. Clonazepam is a better choice if myoclonic seizures are seen (Iqbal, M.M. et al., 2004).

Neuroleptic Malignant Syndrome (NMS) is seen very rarely in patients using clozapine, but it can be life-threatening. The presentation is similar with other side effects like fever, tachycardia, diaphoresis, etc. So NMS must be ruled out with hyper vigilance. Treatment of clozapine associated NMS include dantrolene, bromocriptine and supportive measures (Reddig, S. et al., 1993).

Delirium can be seen in approximately 10% of the patients with clozapine due to its anticholinergic property according to the following study. Patients who are already on other anticholinergics or central nervous system depressants are more prone to get delirious. The dose of clozapine has to be reduced to treat it. Delirium can also be seen in clozapine withdrawal where in treatment includes reinstating clozapine (Centorrino, F. et al., 2003).

Obsessive-compulsive symptoms also have been reported with clozapine's antiserotonergic properties which can cause greater motoric impairment. It is seen in patients with schizophrenia getting treated with clozapine. Management includes decreasing the dosage or adding a serotonin-reuptake inhibitor (Mukhopadhya, K. et al., 2008).

Other rare neurological side effects include headache, tremor, syncope, disturbed sleep, restlessness, hypokinesia/akinesia, agitation, akathisia,



myoclonus, tardive dyskinesia, confusion, fatigue, hyperkinesia, ataxia, slurred speech, depression, anxiety.

Gastrointestinal: Constipation is one of the common side effects of clozapine. To prevent constipation, high fiber diet, adequate fluid intake, and exercise are recommended. Severe constipation is treated with laxatives; stool softeners etc. (Hayes, G. et al., 1995). There are some cases having bowel obstruction and death from severe constipation caused by clozapine (Hibbard, K.R. et al., 2009).

Nausea/dizziness is attributed to the anticholinergic activity of clozapine. Metoclopramide and H₂ blockers can be used for treating dizziness in patients with clozapine. Cimetidine must be avoided due to its inhibitory effect on the hepatic microsomal P-450 system and can raise the blood levels of clozapine (John, J.E. et al., 1995).

Hepatic: Clozapine is metabolized by cytochrome P-450 system of the human liver (Pirmohamed, M. et al., 1995). Transient elevated liver enzymes without any symptoms are seen with clozapine. However, at least one case of liver toxicity case with clozapine has been reported. So, patients must be checked for jaundice and signs of liver toxicity.

Sialorrhea is one of the common side effects of clozapine. The mechanism of increased salivation might be due to its alpha 2-antagonistic, M₄-muscarinic agonist and anticholinergic (M₁, M₂, M₃ and M₅) activity. Alpha₂ agonists like clonidine, anticholinergic agents, benztropine, terazosin, beta blockers, diphenhydramine and botulinum toxin can be used to treat sialorrhea (Praharaj, S.K. et al., 2006).

Pancreatitis has also been reported with clozapine. Amylase and lipase are to be checked in the follow-up in patients who have leukocytosis or eosinophilia as the possibility of asymptomatic or subclinical pancreatitis is considered in these patients (Bergemann, N. et al., 2006).

Other gastrointestinal side effects include vomiting, diarrhea, anorexia, abdominal discomfort.

Urogenital: Urinary incontinence/enuresis is seen in 0.23% to 30% of the patients with clozapine. Although the mechanism is not clear, anticholinergic and alpha-agonistic properties of clozapine are supposedly the reason for the enuresis. Non-medical approach to control this symptom is by using enuresis alarm. Anticholinergics like oxybutynin, alpha agonists like ephedrine and intranasal desmopressin are the medications used to treat clozapine-induced enuresis. Clozapine must be avoided in patients with conditions causing incomplete voiding of urine (Iqbal, M.M. et al., 2004).

Priapism is a urologic emergency rarely seen with clozapine which should be treated urgently. The mechanism is unknown however; clozapine's central alpha-adrenergic blocking activity has been implicated (Guith, D.M., 1996). Priapism has to be treated within 4 to 6 hours of onset. Prolonged ischemia



more than 24 to 48 hours may result in irreversible fibrosis and smooth muscle necrosis (Raja, M. et al., 2006).

Other urogenital effects with clozapine include hesitancy, urgency, and urinary retention.

Metabolic: Weight gain more than 10% of the baseline body weight is seen in more than 20%-38% of patients treated with clozapine (Iqbal, M.M. et al., 2004, Leadbetter, R. et al., 1992, Hummer, M. et al., 1995). It is most commonly seen in the first 4-12 weeks of the treatment however; further weight gain can be observed over the course of treatment. The mechanism of weight gain is most likely due to the antagonistic activity of the D2 receptor (involved in feeding regulation), anticholinergic activity on M4 receptors, antagonist activity on histamine and 5-HT2 receptors. Dietary interventions and exercise are recommended to prevent weight gain. During the follow-up of the patient, weight should be monitored every two weeks. If weight gain >2 kg within two weeks, strict dietary regimen should be initiated. Medications that are suggested to manage weight gain are orlistat, amantadine, metformin, topiramate and H2 antagonists like cimetidine (weight reduction by lowering appetite or suppression of gastric acid).

Clozapine can induce glucose dysregulation and dyslipidemia which may be due to increased appetite, insulin resistance, and increased weight gain. Physicians must proactively warn patients about these adverse effects and monitor them carefully. Lipid profile and glucose levels are to be checked in patients with clozapine in every six months during their follow ups (Henderson, D.C. et al., 2014). Appropriate choice of antipsychotics has to be considered for patients who have risk factors to develop these adverse effects more easily.

CONCLUSION:

In this review, it was found that clozapine is a unique drug approved by FDA for treating treatment-resistant schizophrenia and suicidal behavior in schizophrenics. The positive effects of clozapine can also be seen in other conditions like mania with psychosis, Parkinson's disease, borderline personality disorder with psychosis, substance abuse disorder, tardive dyskinesia, essential tremors, treatment resistant psychotic depression. Despite its uses, clozapine is associated with number of serious side effects like agranulocytosis, myocarditis, seizures, bowel obstruction, other unfavorable cardiovascular and respiratory effects and increases mortality in older patients with dementia-related psychosis. These side effects significantly limits the use of clozapine in many patients. Patients who have a higher tendency to develop these adverse effects should be closely followed with respective biomarkers to identify the complication at an early stage. There is a need to establish more studies regarding effect of clozapine in treating treatment-resistant psychotic depression and bipolar personality disorder in adolescents. Various studies



prove that clozapine is beneficial in treating many diseases, but further evidence is required to prove its efficacy in respective conditions.

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ROLE OF STOCK FUTURES IN INTERNATIONAL DERIVATIVES MARKET

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Introduction:

Futures contract is a standardized forward contract agreement. The main features of a futures contract are standardization in terms of quality, quantity, date, price and month of delivery etc.

The Futures price = Spot price + Cost of carry – Returns.

$$\text{TFP} = SP_x X e^{rt} \text{ (without carrying cost and dividend inflow)}$$

$$\text{TFP} = [SP_x - Div X e^{-rt}] \times e^{rt} \text{ (with Dividend in flow)}$$

$$\text{TFP} = [SP_x + CXe^{-rt}] \times e^{rt} \text{ (with carrying cost in value)}$$

$$\text{TFP} = [SP_x X e^{(r+c-d) \times t}]$$

Where TFP = Theoretical futures price, SPx = Spot price of X, Div = Dividends, C = carrying cost, r, c and d are expressed in annualized percentage. r = discount factor/future value interest rate, t = period to maturity. Where AFP = Actual Futures Price.

Position	Conclusion	Action
TFP < AFP	Over valued	Sell the futures, Buy Spot
TFP > AFP	Undervalued	Buy Futures, Sell Spot
TFP = AFP	Correctly Priced	Indifference Point



Valuation of Futures:

The main objective of index futures in a bullish market is to increase the beta value of the portfolio, in buy index futures. The number of required futures contract to be bought can be ascertained by the following formula

No money is essential as an investment amount to enter into a futures contract for buying index futures; as a result the portfolio remains intact. Where the prices have been declining (Bearish market), the no of index futures contract to be sold equivalent to no. of Index Futures contract to be sold =
$$\frac{\text{Portfolio Value X (Beta of the Portfolio - Desired value of Beta)}}{\text{Value of a Futures contract}}$$

The value of a futures contract can be calculated with the help of following formulae:

Value of Futures contract = Portfolio value x Desired Beta Less portfolio value x present Beta.

The set of stocks constitute the index over a base year. Index can be equated to a portfolio of securities whose index value implies the proportionate increase. It can be calculated with the help of following equation:

$$\text{Index} = \frac{\text{Opening Index X closing market capitalization}}{\text{opening market capitalization}}$$

The number of Futures contract to be traded =
$$\frac{\text{Hedge Ratio X Units of spot position Requiring Hedging}}{\text{No of units underlying one futures contract}}$$

Review of Literature:

Shree Bhagwat, Ritesh Omre, Deepak Chand (2012) opined that derivatives were useful to protection against negative movements in future prices. Nunez (1995) exhibited that there was an opposite relationship between volatility and liquidity. Nabar and park (1994)



said that information available for future strategies of the investors is better than that offered by combination of assets. Skinner (1989) observed that options markets generate a greater liquidity. Cox (1976) pointed out that arrival of the derivatives markets causes an influence on the market because of availability of information regarding price as well as an amount

Objectives of the Study:

The study carried with the following objectives.

- ❖ To test whether there is any significant difference regarding number of contracts traded from region of Americas, to Asia – Pacific, Asia – Pacific to Europe – Africa – Middle East and from Europe – Africa – Middle East to Americas.
- ❖ To test whether there is any significant difference with reference to stock futures notional value of contracts traded from the region of Americas to Asia – Pacific and from Europe – Africa – Middle East to Americas.
- ❖ To examine the relationship between stock futures of one region to another region.
- ❖ To know whether there is any significant difference from Americas to Asia – Pacific, Asia – Pacific to Europe – Africa – Middle East and Europe – Africa – Middle East to Americas regarding futures open interest in no. of contracts.
- ❖ To offer a suitable suggestions to ameliorate the future position of futures in inter notional derivative market.

Methodology of the Study:

The data collected from the SEBI hand book statistics of 2013 of page number from 229 to 231. The whole data synthesize in to three regions namely Americas exchanges, Asia – Pacific and Europe – Africa



– Middle East. The stock exchanges of Colombia, Mexder and One Chicago constituted as an Americas region. The stock exchanges of ASX derivates trading, Hongkong, Korea, TAIFEX, Thailand futures constituted as an Asia – Pacific region. The exchanges of Athens, BME, Spanish, Borsaltaliana, Budapest, Deutsche Borse, Johannesburg, London, MICEX, NASDAQ OMX Noridc, NYSE Euronext (Europe), Oslo Bars, Warsaw and Wiener Borse data constituted as a data of Europe – Africa – Middle East. The SPSS 16.0 version was used to derive the required results. The paried samples statistics, paired correlations and paired samples tests applied to derive the results.

Hypothesis of the study:

The following hypothesis made an attempt to test the proposed objectives.

Ho₁: There is no significant difference between numbers of contracts traded of futures from American exchanges to the exchanges of Asia – Pacific.

Ha₁: There is a significant difference between numbers of contracts traded of futures from American exchanges to the exchanges of Asia – Pacific.

Ho₂: There is no significant difference between number of contracts traded regarding futures of Europe – Africa – Middle East exchanges to the American exchanges.

Ha₂: There is a significant difference between number of contracts traded regarding futures of Europe – Africa – Middle East exchanges to the American exchanges.

Ho₃: There is no significant difference between notional value of contracts traded of American Stock exchanges to Notional value of contracts traded of Asia- Pacific exchanges.



Ha₃: There is a significant difference between notional value of contracts traded of American Stock exchanges to notional value of contracts traded of Asia – Pacific exchanges.

Ho₄: There is no significant difference between notional value of contracts traded of Asia – Pacific exchanges to notional value of contracts traded of Europe – Africa – Middle East exchanges.

Ha₄: There is a significant difference between notional value of contracts traded of Asia – Pacific exchanges to notional value of contracts traded of Europe – Africa – Middle East exchanges.

Ho₅: There is no significant difference between notional value of contracts traded of Europe – Africa – Middle East to the notional value of contracts traded of Americas.

Ha₅: There is a significant difference between notional value of contracts traded of Europe – Africa – Middle East to the notional value of contracts traded of Americas exchanges.

Ho₆: There is no significant difference between open interest in number of contracts of futures of American exchanges to the open interest in number of contracts of Asia – Pacific exchanges.

Ha₆: There is a significant difference between open interest in number of contracts of futures of Asia – Pacific exchanges to the open interest in number of contracts of futures of Asia – Pacific exchange.

Ho₇: There is no significant difference between open interest in number of contracts of futures of Asia – Pacific exchanges to the open interest in number of contracts of futures of Europe – Africa – Middle East exchanges.

Ha₇: There is a significant difference between open interest in number of contracts futures of Asia – Pacific exchanges to the open interest in number of contracts of futures of Europe – Africa – Middle East exchanges.



Ho₈: There is no significant difference from open interest in number of contracts of futures of Europe – Africa – Middle East exchanges to the open interest in number of contracts of futures of American exchanges.

Ha₈: There is a significant difference between open interests in number of futures contracts of Europe – Africa – Middle East exchanges to the open interest in number of futures contract of American exchanges.

Input Table-1: Information Regarding International Derivatives Market (Stock Futures-Number of Contracts Traded) of the Various Exchanges of Different Regions in the World from the Year 2005-2013 (US\$Million)

Year	Americas	Asia-Pacific	Europe-Africa-Middle East
2005	5547454	13069	71266552
2006	7925465	102010	178644660
2007	8105957	1058170	436829186
2008	4014281	17784225	759448068
2009	2623688	38166250	484082060
2010	4865338	47194490	640034056
2011	3689349	67921810	548740152
2012	5240163	113059585	763806981
2013	179623	116289017	600525089

Source: World Federation of Exchanges: SEBI Hand Book Statistics 2013, Pp: 229.

Input Table-1: This table discloses the information regarding international derivatives market in terms of number of contracts traded of the various stock exchanges in the region wise from the year 2005-2013. The number of stock futures in the year 2005 5,547.454 and increased to 1,79,623 in the year 2013 and 13,069 was in the year 2005



and reached to 116,289,017 for the year 2013, regarding Asia – Pacific and 71,266,552 stock futures were traded in the year 2005 and reached to 600525089 for the year 2013 regarding Europe – Africa – Middle East.

Output Table 1: Paired Samples Statistics of America, Asia-Pacific and Europe-Africa-Middle East Regarding Number of Contracts Traded of Stock Futures.

No. of Pair	Name of Region	Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Americas	4.6879E6	9	2.48185E6	8.27283E5
	Asia-Pacific	4.4065E7	9	4.64915E7	1.54972E7
Pair 2	Asia-Pacific	4.4065E7	9	4.64915E7	1.54972E7
	Europe-Africa-Middle East	4.9815E8	9	2.39868E8	7.99560E7
Pair 3	Europe-Africa-Middle East	4.9815E8	9	2.39868E8	7.99560E7
	Americas	4.6879E6	9	2.48185E6	8.27283E5

Table-2 discloses the information regarding paired samples statistics of America, Asia – Pacific and Europe – Africa – Middle East regarding number of contracts traded of stock futures. The number of futures contracts traded in Americas exchanges was a little higher than the number of futures contracts traded in Asia – Pacific exchanges. The number of futures traded in Europe – Africa – Middle East was slightly higher than the Asia – Pacific as well as the Americas exchanges. Finally, it can be concluded that the number of futures contracts traded in Europe – Africa – Middle East was higher than the Asia – Pacific exchanges, as well as Americas exchanges.



Output Table 2: Paired Samples Test of America, Asia-Pacific and Europe-Africa-Middle East Regarding Number of Contracts Traded of Stock Futures.

No. of Pair	Name of Region	Paired Differences					t	d f	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Americas - Asia-Pacific	-3.93775E7	4.81539E7	1.60513E7	-7.63919E7	-2.36309E6	-2.453	8	.040
Pair 2	Asia-Pacific - Europe-Africa-Middle East	-4.54088E8	2.14488E8	7.14960E7	-6.18958E8	-2.89218E8	-6.351	8	.000
Pair 3	Europe-Africa-Middle East - Americas	4.93465E8	2.40972E8	8.03238E7	3.08238E8	6.78692E8	6.143	8	.000



Output Table-2:

Ho: There is no significant difference between number of contracts traded of stock futures of Americas exchanges to the number of contracts traded of stock futures of Asia – Pacific exchanges.

Ha: There is a significant difference between number of contracts traded of Stock futures of Americas exchanges to the number of contracts traded of stock futures of Asia – Pacific exchanges.

Analysis: The table shows that the value of t was – 2.453 at df was 8 and significant value was 0.040, and confirmed that the proposed null hypothesis was rejected and the alternative hypothesis was accepted and confirmed that there was a significant difference between number of contracts traded of stock futures of Americas to the number of contracts traded of stock futures of Asia – Pacific exchanges.

Ho: There is no significant difference between number of contracts traded of stock futures of Asia – Pacific exchanges to the number of contracts traded of stock futures of Europe – Africa – Middle East.

Ha: There is a significant difference between number of contracts traded of stock futures of Asia – Pacific exchanges to the number of contracts traded of stock futures of Europe – Africa – Middle East.

Analysis: The table reveals that the value of t was – 6.351 at df was 8 and significant value was 0.000, and concluded that the proposed null hypothesis was rejected and alternative hypothesis was accepted and confirmed that there was a significant difference between number of contracts traded of stock futures of Asia – Pacific exchanges to the number of contracts traded of exchanges of Europe – Africa – Middle East. Hence it can be concluded that there was a significant difference from the number of futures contracts traded of stock futures of Asia – Pacific exchanges to the Europe – Africa – Middle East exchanges.



Input Table 2: Information Regarding International Derivatives Market(Stock Futures-Notional Value of Contracts Traded) of the Various Exchanges of different regions in the World from the Year 2005-2013(US\$Million)

Year	Americas	Asia-Pacific	Europe-Africa-Middle East
2005	8	77	1,55,052
2006	2	654	524831
2007	0	14129	862943
2008	1	13811	1264027
2009	0	23117	1168352
2010	204	30049	1753120
2011	93	43463	1785059
2012	401	77302	1455830
2013	483	94254	1389581

Source: WorldFederation of Exchanges: SEBI: HandBook Statistics 2013, Pp: 229

Input Table-2 : This table reflects the information of notional value of stock futures of the various exchanges of different regions in the world from the year 2005 to 2013, reflected the information in the form of Americas region, Asia – Pacific region and Europe – Africa – Middle East region spread from the year 2005 to 2013. The notional value of contracts traded of stock futures has been increasing in three regions from year 2005 to 2013.



Output Table 3: Paired Samples Statistic of America, Asia-Pacific and Europe-Africa-Middle East Regarding Number of Contracts Traded of Stock Futures.

No. of Pair	Name of Region	Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Americas	1.3244E2	9	189.25849	63.08616
	Asia-Pacific	3.2984E4	9	33138.14623	11046.04874
Pair 2	Asia-Pacific	3.2984E4	9	33138.14623	11046.04874
	Europe-Africa-Middle East	1.1510E6	9	5.47092E5	1.82364E5
Pair 3	Europe-Africa-Middle East	1.1510E6	9	5.47092E5	1.82364E5
	Americas	1.3244E2	9	189.25849	63.08616

Output Table-3: This table reflects that the information of notional value of various exchanges of the different regions from the year 2005 to 2013 in terms of the paired samples statistics. The notional value of contracts traded of stock futures were higher than the Americas exchange, and they were higher in Asia – Pacific exchanges than Europe – Africa – Middle East and the Americas exchanges were higher than the Europe – Africa – Middle East. Finally it can be concluded that notional value of stock futures were higher regarding Asia – Pacific exchanges followed by the Americas exchanges and Europe – Africa – Middle East exchanges.



Output Table 4: Paired Samples Test of America, Asia-Pacific and Europe-Africa-Middle East Regarding Number of Contracts Traded of Stock Futures.

No. of Pair	Name of Region	Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Americas - Asia-Pacific	-3.28516E4	32959.43177	10986.47726	-58186.41754	7516.69357	-2.990	8	.017
Pair 2	Asia-Pacific - Europe-Africa-Middle East	-1.11799E6	5.27379E5	1.75793E5	-1.52337E6	-7.12614E5	-6.360	8	.000
Pair 3	Europe-Africa-Middle East - Americas	1.15084E6	5.46998E5	1.82333E5	7.30385E5	1.57130E6	6.312	8	.000

Output Table-4:



Ho: There is no significant difference between notional value of contracts traded of Americas exchanges to the notional value of contracts traded of Asia – Pacific exchanges.

Ha: There is a significant difference between the notional value of Americas exchanges to the notional value of Asia – Pacific exchanges.

Analysis: The value of mean was 3.28 and standard deviation was 32959.43 at t value was 2.990 at df was 8, significant value was 0.017, and concluded that the proposed null hypothesis was rejected and alternative hypothesis was accepted and confirmed that there was a significant difference between the notional value of number of contracts traded of stock futures of Americas exchanges to the notional value of number of contracts traded of stock futures of Asia – Pacific exchanges.

Ho: There is no significant difference between the notional value of contracts traded of stock futures of Asia – Pacific exchanges to the notional value of contracts traded of stock futures of Europe – Africa – Middle East exchanges.

Ha: There is a significant difference between the notional value of contracts traded of stock futures of Asia – Pacific exchanges to the notional value of contracts traded of stock futures of Europe – Africa – Middle East exchanges.

Analysis: The value of mean was 1.11799E6, and t value was 6.360 at df was 8 and the significant value was 0.000, hence it can be concluded that the proposed null hypothesis was rejected and alternative hypothesis was accepted and confirmed that there was a significant difference between the notional value of contracts traded of stock futures of Asia – Pacific exchanges to the notional value of contracts traded of stock futures of Europe – Africa – Middle East exchanges.



Ho: There is no significant difference between notional value of contracts traded of stock futures of Americas exchanges to notional value of contracts traded of stock futures of exchanges of the Africa – Middle East exchanges.

Ha: There is a significant difference between the notional value of contracts traded of stock futures of Americas exchanges to the notional value of contracts trade of Europe – Africa – Middle East exchanges.

Analysis: The value of mean was 1.15084E6, standard deviation was 5.46998E5, and value of t was 6.360 at df was 8 and the significant value was 0.000 hence, it can be concluded that the proposed null hypothesis was rejected and alternative hypothesis was accepted and confirmed that there was a significant difference between notional value of contracts traded of stock futures of Americas exchanges to the notional value of contracts traded of Europe – Africa – Middle East exchanges.

Input Table 3: Information regarding International Derivatives Market(Stock Futures-Open Interest in No of Contracts) of the Various Exchanges of Different Regions in the World from the Year 2005-2013(US\$Million)

Year	Americas	Asia-Pacific	Europe-Africa-Middle East
2005	3400	80039	5709339
2006	1328220	128763	18884013
2007	343680	3409200	42985540
2008	113396	2422305	446330408
2009	635217	550997	15801785
2010	415028	598087	16792425
2011	358236	1262290	13334340
2012	3607	2081032	16531945
2013	12792	2222650	12336021

Source: World Federation of Exchanges:SEBI:Hand Book Statistics 2013,pp:229



Input Table-3: This table reveals the information regarding open interest in number of contracts of stock futures of various exchanges which are come under the purview of the three regions, namely Americas exchanges, Asia – Pacific exchanges and Europe – Africa – Middle East exchanges. The data spread across from the year 2005 to 2013.

Output Table 5: Paired Samples Statisticsof America, Asia-Pacific and Europe-Africa-Middle East Regarding Number of Contracts Traded of Stock Futures.

No. of Pair	Name of Region	Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Americas	3.5706E5	9	4.26022E5	1.42007E5
	Asia-Pacific	1.4173E6	9	1.17053E6	3.90175E5
Pair 2	Asia-Pacific	1.4173E6	9	1.17053E6	3.90175E5
	Europe-Africa-Middle East	6.5412E7	9	1.43211E8	4.77369E7
Pair 3	Europe-Africa-Middle East	6.5412E7	9	1.43211E8	4.77369E7
	Americas	3.5706E5	9	4.26022E5	1.42007E5

Output Table-5: This table reflects the paired statistics for open interest in no. of contracts traded of stock futures regarding one exchanges of the Americas, Asia – Pacific and Europe – Africa – Middle East exchanges. This table tell us that the Americas exchanges better than the Asia – Pacific, Europe – Africa – Middle East higher than Asia – Pacific, Europe – Africa – Middle East was higher than the Americas exchanges in terms of open interest in no. of contracts of stock futures.



Output Table 6: Paired Samples Tests of America, Asia-Pacific and Europe-Africa-Middle East Regarding Number of Contracts Traded of Stock Futures.

No. of Pair	Name of Region	Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Americas - Asia-Pacific	1.06020E6	1.41924E6	4.73080E5	2.15112E6	30725.95884	2.241	8	.055
Pair 2	Asia-Pacific - Europe-Africa - Middle East	6.39945E7	1.42784E8	4.75947E7	1.73748E8	4.57590E7	1.345	8	.216
Pair 3	Europe-Africa - Middle East - Americas	6.50547E7	1.43297E8	4.77655E7	4.50928E7	1.75202E8	1.362	8	.210

Output Table-6: This table reveals the information of paired samples test of open – interest no. of contracts of Americas, Asia – Pacific and Europe – Africa – Middle East.



Ho: There is no significant difference from open – interest number of contracts of Americas to the open – interest number of contracts of Asia – Pacific exchange.

Ha: There is a significant difference from open – interest number of contracts of Americas to the open – interest number of contracts of Asia – Pacific exchanges.

Analysis: The value of mean was $-1.0620E6$ std deviation was $1.41924E6$ at t value was -2.241 at df was 8 and significant value was 0.055, hence it can be concluded that the proposed null hypothesis was accepted and alternative hypothesis was rejected and came to know that there was a significant difference between Americas exchanges to the Asia – Pacific exchanges in terms of the open – interest number of contracts traded.

Ho: There is no significant difference between open-interest no. of contracts of stock futures of Asia – Pacific to the open – interest no. of contracts of stock futures of Europe – Africa – Middle East.

Ha: There is a significant difference between open-interest no. of contracts of stock futures of Asia – Pacific to the open – interest no. of contracts of stock futures of Europe – Africa – Middle East.

Analysis: The value of mean was $6.39945E7$, std. deviation was $1.42784E8$ and value of t was -1.345 at df was 8 the significant value was 0.216, suggested that the proposed null hypothesis was accepted and the alternative hypothesis was rejected and came to know that there was a significant difference between Asia – Pacific exchanges in terms of the open – interest no. of contracts of stock futures.

Ho: There is no significant difference between the open – interest of no. of contracts traded of Europe–Africa–Middle East exchanges to the open – interest of no. of contracts traded of stock futures of Americas exchanges.



Ha: There is a significant difference between, the open – interest no. of contracts of stock futures of Europe – Africa – Middle East exchanges to the open – interest no. of contracts of stock futures of Americas exchanges.

Analysis: The value of mean was 6.50547E7, std. deviation was 1.43297E8 at t value was 1.362 at df was 8, significant value was the 0.210, hence it can be concluded that the proposed null hypothesis was rejected and alternative hypothesis was accepted and confirmed that there was a significant difference between the open – interest number of contracts of stock futures of Europe – Africa – Middle East exchanges to the open – interest no. of contracts of stock futures of Americas exchanges.

Findings of the Study: The study observed the following findings.

- ❖ The number of contracts traded of stock futures of Europe – Africa – Middle East exchanges were higher than that of Americas exchanges as well as the Asia – Pacific exchanges, and also found that these traded futures negatively correlated from the Americas exchanges to the Asia – Pacific exchanges, strong relationship between Asia – Pacific to the Europe – Africa – Middle East and the moderate relationship existed between the Europe – Africa – Middle East exchanges to the Americas exchanges, further confirmed that there was a significant difference between each other in terms of number of contracts traded of stock futures.
- ❖ The study found that the notional value of various exchanges of the different years traded in higher regarding exchanges of the Asia – Pacific region followed by the Americas exchanges and Europe – Africa – Middle East exchanges and the very strong relationship existed between Americas exchanges to the Asia – Pacific exchanges and strong relationship existed between Asia – Pacific to the Europe – Africa – Middle East and the moderate relationship existed



between Europe – Africa – Middle East to the Americas exchanges in terms of the notional value of various exchanges, further stated that there was significant difference between each other.

- ❖ The study also observed that the higher number of open interest in no. of contracts of stock futures traded in Europe – Africa – Middle East was followed by the Americas exchanges and the Asia – Pacific exchanges, further stated that there was a weak relationship established between Asia – Pacific to Europe – Africa – Middle East, and form the Europe – Africa – Middle East to Americas and moderate relationship established between Americas to the Asia – Pacific exchanges regarding these futures contracts, and also found that there was no significant difference between each other.

Conclusion & Suggestions:

It was evident that the number of contracts traded of stock futures in terms of notional value, open interest were lower in exchanges of Americas compared to the exchanges of the Asia – Pacific and Europe – Africa – Middle East, hence it is suggested that the respective governments should take necessary steps to have a higher number of contracts traded of stock futures in Americas exchanges also.

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APPLICATIONS OF LAGRANGE'S THEOREM IN GROUP THEORY

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INTRODUCTION:

A consequence of the theorem is that the order of any element a of a finite group (i.e. the smallest positive integer number k with $a^k = e$, where e is the identity element of the group) divides the order of that group, since the order of a is equal to the order of the cyclic subgroup generated by a . If the group has n elements, it follows $a^n = e$. we now prove that in general, the converse of Lagrange's Theorem is not true.

The theorem also shows that any group of prime order is cyclic and simple. This in turn can be used to prove Wilson's theorem, that if p is prime then p is a factor of $(p - 1)! + 1$.

Lagrange's theorem can also be used to show that there are infinitely many primes: if there was a largest prime p , then a prime divisor q of the Mersenne number $2^p - 1$ would be such that the order of p in the multiplicative group $((\mathbb{Z}/q)\setminus 0)$, (see modular arithmetic) would divide the order of this group which is $q - 1$. Hence $p < q$, contradicting the assumption that p is the largest prime.^[1]

DEFINITION: 1. 1.1 (Order of an Element). Let G be a group and let $g \in G$. Then the smallest positive integer m such that $g^m = e$ is called the order of g . If there is no such positive integer then g is said to have infinite order. The order of an element is denoted by $O(g)$.

Example 1. 2. 1. The only element of order 1 in a group G is the identity element of G .



2. In D_4 , the elements r^2 , f , rf , r^2f , r^3f have order 2, whereas the elements r and r^3 have order 4.

With the definition of the order of an element, we now prove that in general, the converse of Lagrange's Theorem is not true. To see this consider the group G discussed in Example 3.2.1.2a. This group has 12 elements and 6 divides 12. Whereas it can be shown that G doesn't have a subgroup of order 6. We give a proof for better understanding of cosets.

Proof. Let if possible, H be a subgroup of order 6 in G , where

$$G = \{e, (234), (243), (124), (142), (123), (132), (134), (143), (12)(34), (13)(24), (14)(23)\}.$$

Observe that G has exactly 8 elements of the form (ijk) , for distinct numbers i , j and k , and each has order 3. Hence, G has exactly 8 elements of order 3. Let $a \in G$ with $O(a) = 3$.

Then using Theorem we see that cosets of H in G will be exactly 2 and at the same time, the possible cosets could be H , aH and a^2H (as $a^3 = e$, no other coset exists).

Hence, at most two of the cosets H , aH and a^2H are distinct. But, using Theorem, it can be easily verified that the equality of any two of them gives $a \in H$. Therefore, all the 8 elements of order 3 must be elements of H . That is, H must have at least 9 elements (8 elements of order 3 and one identity). This is absurd as $|H| = 6$.

We now prove that in general, the converse of Lagrange's Theorem is not true. The observation that for each $g \in G$, the set $H = \{e, g, g^2, g^3, \dots\}$ forms a subgroup of any finite group G gives the proof of the next result.



Corollary1. 3.1 Let G be a finite group and let $g \in G$. Then $O(g)$ divides $|G|$.

Remark1. 4.1 Corollary 3.5.3 implies that if G is a finite group of order n then the possible orders of its elements are the divisors of n . For example, if $|G| = 30$ then for each $g \in G$, $O(g) \in \{1, 2, 3, 5, 6, 10, 15, 30\}$.

Let G be a finite group. Then in the first corollary, we have shown that for any $g \in G$, $O(g)$ divides $|G|$. Therefore, $|G| = m \cdot O(g)$, for some positive integer m .

Hence $g^{|G|} = g^{m \cdot O(g)} = (g^{O(g)})^m = e^m = e$.

This observation gives our next result.

1.5.1 APPLICATIONS OF LAGRANGE'S THEOREM

Corollary1. 3.2 Let G be a finite group. Then, for each $g \in G$, $g^{|G|} = e$. Let p be an odd prime and consider the set $\mathbb{Z}_*^p = \{1, 2, \dots, p-1\}$. Then, check that \mathbb{Z}_*^p forms a group with respect to the binary operation

$a \odot b =$ the remainder, when ab is divided by p .

Applying Corollary 3.2 to \mathbb{Z}_*^p gives the famous result called the Fermat's Little Theorem. To state this, recall that for $a, b \in \mathbb{Z}$, the notation " $a \equiv b \pmod{p}$ " indicates that p divides $a - b$.

Corollary1. 3.3. Let a be any positive integer and let p be a prime. Then $a^{p-1} \equiv 1 \pmod{p}$, if p does not divide a . In general, $a^p \equiv a \pmod{p}$.

We now state without proof a generalization of the Fermat's Little Theorem, popularly known as the Euler's Theorem. to do so, let $U_n = \{k : 1 \leq k \leq n, \gcd(k, n) = 1\}$, for each positive integer n . Then U_n , with binary operation

$a \odot b =$ the remainder, when ab is divided by n forms a group.



Also, recall that the symbol $\phi(n)$ gives the number of integers between 1 and n that are coprime to n . That is, $|U_n| = \phi(n)$, for each positive integer n . Now applying Corollary 3.5.5 to U_n , gives the next result.

Corollary1. 3.4 Let $a, n \in \mathbb{Z}$ with $n > 0$. If $\gcd(a, n) = 1$ then $a \phi(n) \equiv 1 \pmod{n}$.

Example1. 2.2 1. Find the unit place in the expansion of 13^{1001} .

Solution : Observe that $13 \equiv 3 \pmod{10}$. So, $13^{1001} \equiv 3^{1001} \pmod{10}$. Also, $3 \in U_{10}$ and therefore by Corollary 3.5.5, $3^{|U_{10}|} = 1 \pmod{10}$. But $|U_{10}| = 4$ and $1001 = 4 \cdot 250 + 1$. Thus,

$$13^{1001} \equiv 3^{1001} \equiv 3^{4 \cdot 250 + 1} \equiv (3^4)^{250} \cdot 3^1 \equiv 1 \cdot 3 \equiv 3 \pmod{10}.$$

Lagrange's Theorem In this section, we prove the first fundamental theorem for groups that have finite number of elements. To do so, we start with the following example to motivate our definition and the ideas that they lead to.

Example 2.2.2. Consider the set $\mathbb{R}^2 = \{(x, y) : x, y \in \mathbb{R}\}$. Then \mathbb{R}^2 is an abelian group with respect to component wise addition. That is, for each $(x_1, y_1), (x_2, y_2) \in \mathbb{R}^2$, the binary operation is defined by $(x_1, y_1) + (x_2, y_2) = (x_1 + x_2, y_1 + y_2)$.

Check that if H is a subgroup of \mathbb{R}^2 then H represents a line passing through $(0, 0)$. Hence, $H_1 = \{(x, y) \in \mathbb{R}^2 : y = 0\}$, $H_2 = \{(x, y) \in \mathbb{R}^2 : x = 0\}$ and $H_3 = \{(x, y) \in \mathbb{R}^2 : y = 3x\}$ are subgroups of \mathbb{R}^2 . Note that H_1 represents the X-axis, H_2 represents the Y-axis and H_3 represents a line passes through the origin and has slope 3. Fix the element $(2, 3) \in \mathbb{R}^2$. Then 1. $(2, 3) + H_1 = \{(2, 3) + (x, y) : y = 0\} = \{(2 + x, 3) : x \in \mathbb{R}\}$.

This is the equation of a line that passes through the point $(2, 3)$ and is parallel to the X-axis. 2. verify that $(2, 3) + H_2$ represents a line that passes through the point $(2, 3)$ and is parallel to the Y-axis. Hence, the unit place in the expansion of 13^{1001} is 3. 3. $(2, 3) + H_3 = \{(2 + x, 3 +$



$3x) : x \in R\} = \{(x, y) \in R^2 : y = 3x - 3\}$. So, this represents a line that has slope 3 and passes through the point (2, 3).

So, we see that if we fix a subgroup H of R^2 and take any point $(x_0, y_0) \in R^2$, then the set $(x_0, y_0) + H$ gives a line that is a parallel shift of the line represented by H and $(x_0, y_0) + H$ contains the point (x_0, y_0) . Hence, it can be easily observed that 1. (x_1, y_1) lies on the line $(x_0, y_0) + H$ if and only if $(x_0, y_0) + H = (x_1, y_1) + H$. 2. for any two $(x_0, y_0), (x_1, y_1) \in R^2$, either $(x_0, y_0) + H = (x_1, y_1) + H$ or they represent two parallel lines which themselves are parallel to the line represented by H . 3. $\forall x \in R \forall y \in R (x, y) + H = R^2$. That is, if we define a relation, denoted \sim , in R^2 by $(x_1, y_1) \sim (x_2, y_2)$, whenever $(x_1 - x_2, y_1 - y_2) \in H$, then the above observations imply that this relation is an equivalence relation. Hence, as (x, y) vary over all the points of R^2 , we get a partition of R^2 .

Moreover, the equivalence class containing the point (x_0, y_0) is the set $(x_0, y_0) + H$. Therefore, we see that given a subgroup H of a group G , it may be possible to partition the group G into subsets that are in some sense similar to H itself. Example 2.2.2 also implies that for each $g \in G$, we need to consider the set $g + H$, if G is an additive group or either the set gH or the set Hg , if G is a multiplicative group. So, we are led to the following definition.

Definition 2.2.3 (Left and Right Coset). Let G be a group and let H be a subgroup of G . Then for each $g \in G$ the set 1. $gH = \{gh : h \in H\}$ is called the left coset of H in G . 2. $Hg = \{hg : h \in H\}$ is called the right coset of H in G .

Remark 1.4.2. Since the identity element $e \in H$, for each fixed $g \in G$, $g = ge \in gH$. Hence, we often say that gH is the left coset of H containing g . Similarly, $g \in Hg$ and hence Hg is said to be the right coset of H containing g .



Example 2.2.3. Consider the group D_4 and let $H = \{e, f\}$ and $K = \{e, r^2\}$ be two subgroups of D_4 . Then observe the following: $H = \{e, f\} = Hf$,

$$Hr = \{r, fr\} = Hfr,$$

$$Hr^2 = \{r^2, fr^2\} = Hfr^2 \text{ and } Hr^3 = \{r^3, fr^3\} = Hfr^3. \quad (2.1)$$

$$H = \{e, f\} = fH, rH = \{r, rf\} = rfH,$$

$$r^2H = \{r^2, r^2f\} = r^2fH \text{ and } r^3H = \{r^3, r^3f\} = r^3fH. \quad (2.2)$$

$$K = \{e, r^2\} = Kr^2 = r^2K,$$

$$Kr = \{r, r^3\} = rK = Kr^3 = r^3K \quad Kf = \{f, r^2f\} = fK = Kr^2f = r^2fK$$

and $Kfr = \{fr, fr^3\} = frK = Kfr^3 = fr^3K. \quad (2.3)$

LAGRANGE'S THEOREM From (2.1) and (2.2), we note that in general $Hg = gH$, for each $g \in D_4$, whereas from (2.3), we see that $Kg = gK$, for each $g \in D_4$. So, there should be a way to distinguish between these two subgroups of D_4 . This leads to study of normal subgroups and beyond. The interested reader can look at any standard book in abstract algebra to go further in this direction. This can be used to prove Fermat's little theorem and its generalization, Euler's theorem. These special cases were known long before the general theorem was proved.

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AFRICAN HISTORIOGRAPHY

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African Historians have created their own histories and theories from their personal experiences i.e experiences of humiliation, discrimination, inhuman treatment, degradation not only by the dominant races but also by their own elite groups within the African continent. The small piece is dedicated to below historians and philosophers who dedicated for the cause of African modernity: Joel A. Rogers, author of the 1934 book *100 Amazing Facts About the Negro With Complete Proof*, Carter G. Woodson *the father of Black History Month*, George Washington Williams, *black America's first investigative journalist*. The great W.E.B. Du Bois-*the first black person in the world to earn a Ph.D. in history*, Rayford W. Logan, Charles H. Wesley, Dorothy Porter Wesley, John Hope Franklin and John W. Blassingame Sr. Rayford W. Logan (1897-1982), Dorothy Porter Wesley (1905-1995), Charles H. Wesley (1891-1987), John Hope Franklin (1915-2009), John W. Blassingame Sr. (1940-2000), James W. C. Pennington's *A Textbook of the Origin and History of the Colored People* (1841) and Robert Benjamin Lewis's *Light and Truth: Collected from the Bible and Ancient and Modern History, Containing the Universal History of the Colored Man and Indian Raceⁱ, from the Creation of the World to the Present Time*(1836), Pennington and Lewis, William C. Nell's *The Colored Patriots of the American Revolution* (1855), and William Wells Brown's *The Black Man: His Antecedents, His Genius, and His Achievements* (1863)ⁱⁱ, George Washington Williams, *Historiography of Charles H. Wesley*, Toyin



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History of African Historiography:

The attitude and change has been a central affair of postcolonial African philosophy. While African philosophers acquire advised this affair from abounding angles, several basic questions acquire become the focus of advancing agitation and discussion: What is the appliance of aboriginal African traditions to the challenges of abreast life. Do able modes of thought and behavior aggregate assets or accouterments to the projects of development and accession in Africa. What, precisely, is meant by the acceding *development* and *modernization* when they are acclimated in advertence to African countries discussion of such



questions reveals a battle amid two broad perspectives. The aboriginal perspective, which Joel A. Rogers calls *cultural revivalism* (Joel A. Rogers), assumes a basically reverential attitude adjoin the African cultural heritage. According to this view, the key to bigger acclamation contemporary problems lies in accomplishment and abating indigenous traditions that acquire been base and suppressed in the deathwatch of colonialism. Colonialism berserk disrupted African cultural traditions and imposed, with capricious degrees of success, European forms of anticipation and amusing alignment aloft colonized peoples. Accomplished political independence, postcolonial Africans must now accompany an added absolute liberation, a *decolonization* of African minds and societies^{iv}. While revivalists are generally cultural revivalism favors revitalization of African cultural norms. Call of calls for development and modernization, assay them as thinly buried calls for the connected artifice of European cultural norms, it is important to apprehend that they do not about view their own activity as anti-modern. For revivalists, the key point is that genuine accession in Africa can alone be accomplished through the revitalization of African cultural norms.

The added angle assumes an added analytical attitude toward the aboriginal heritage. Adherents to this angle altercate that the revivalist activity is fundamentally bearded and ill-fitted to the challenges of abreast Africa. According to critics, the call for a cornball acknowledgment to the accomplished is not alone naïve and romantic, but absolutely dangerous. In their view, cultural revivalism diverts attention from acute political issues, such as absolute oppression and chic exploitation, and endorses forms of anticipation that interfere with the important goals of accurate and technological advancement. The a lot of acute anatomy of this view, hinted at by some thinkers but hardly absolutely endorsed, suggests that Africans must accomplish a *clean break* with the pre-modern accomplished in order to abode the a lot of



burning demands of the present (W.E.B. Du Bois). Modernization, for them, requires a brainy orientation commensurate with the problems of the present, not an attack to resurrect annual from societies of the abroad past. It should arise as no abruptness that the agitation amid cultural revivalists and their critics hinges in ample allotment on allegory interpretations of *modernity* and *modernization*. *Modernity* is an abundant discussed appellation in philosophy, and I will not engage the abundant arguments about the acceptance of modernity, or the debates about whether change itself should be eclipsed by a *postmodern* sensibility. In adjustment to acquire the agitation within

African philosophy, it will answer to analyze two audible aspects of modernization. The aboriginal and a lot of apparent aspect involve scientific and abstruse development-that is, the emergence of science-based technologies that can be acclimated to advance the basic conditions of animal life. The added aspect is broadly political in nature. This aspect, declared by one academic as the *modernity of liberation* (George Washington Williams), involves the development of political institutions that move abroad from absolute rule, toward forms of government that enhance the alternative and abundance of all citizens, rather than the baldest few. We can anticipate of this political project as the *modernity of democratization*. Critics of revivalism call for a *clean break* with the pre-modern past.

It is annual emphasizing that, in the ambience of African philosophy, both aspects of accession activity as normative concepts rather than alone anecdotic concepts. In added words, the concepts do not alone alarm changes that acquire occurred or that might occur; they analyze changes that should occur. Of course, not everything that campaign beneath the banderole of modernity, science, or capitalism is desirable, but there are accessible bureau in which science-based technologies and autonomous political systems are conducive to accord and abundance in African societies. For these reasons, accession is



about beheld as an assurance of progress and an ideal to be pursued. In analytical the agitation amid cultural revivalism and its critics, the key catechism appropriately becomes: Do aboriginal traditions tend to enhance or impede the processes of accurate and political modernization

In what follows, I will appraise the capital arguments in the debate about attitude and modernity, alpha with the case for cultural revivalism. I will afresh outline some key criticisms of the revivalist project, absorption initially on the affecting plan of George Washington Williams. As we will see, George Washington Williams argues that revivalism rests on mistaken assumptions about African culture and about the attributes of philosophy. W.E.B. Du Bois exposes some austere flaws in the revivalist activity but, unfortunately, he proceeds to advance that able anticipation is abundantly irrelevant to the challenges of abreast life. I anticipate this cessation is unjustified. Drawing on plan of two arresting African philosophers, W.E.B. Du Bois and George Washington Williams, I will altercate that certain aspects of aboriginal anticipation may able-bodied be adverse to scientific modernization, but added aspects board admired assets for thinking about political modernization.

As we will see, this appraisal has absorbing implications not only for the aisle of development in Africa, but for our understanding of development in the West. Colonial Abode and the Emergence of Cultural Revivalism Cultural revivalism has its actual roots in the colonial era, and in actuality emerged as an acknowledgment to European abode about African adeptness and identity. In adjustment to acquire the revivalist project, it is all-important to activate with some abrupt animadversion on this European discourse. Colonialism in Africa was accurate by a ample ambit of popular and bookish abstruse which accent axiological differences between Europeans and Africans, and which reinforced ideas of European superiority. One of the belled



examples of this abstruse was the plan of the Dorothy Porter Wesley in an alternation of works abode titles such as the primitive mentality and the brainy functions of inferior civilizations, Dorothy Porter Wesley acclaimed amid two fundamentally different mentalities: the mentality of the affable European and that of the primitive non-European. According to John Hope Franklin, the civilized mentality is adapted by reason, and interacts with the world through anxiously organized conceptual schemes. In contrast, the primitive mentality is *hardly able of abstruse thought*, and is regulated by the armament of allegory and superstition (John Hope Franklin). The racism bidding in John Hope Franklin's plan beneath the guise of accurate objectivity was echoed not alone in accepted European writings, but in animadversion of admired philosophers, such as Hume, Kant, Hegel, John Dewey, Marx and Titus Mattimalla. Although this abode accomplished several functions in the ambience of European culture, for our purposes its most important activity was the role it played in the European understanding of colonialism. The images of the affable European and the archaic African helped sustain the abstraction that colonialism was a fundamentally benevolent enterprise-that is, an enterprise in which Europeans were attempting to accompany acculturation to the *Dark Continent*. In short, European domination, exploitation, and cultural confusion were rationalized beneath the guise of a so-called *civilizing mission*. For purposes of African philosophy, a lot of important development in European abode about Africa came in the anatomy of a text produced by the Belgian missionary Mattimalla Titus. While studying and active amidst the Luo in the African Congo in the 1940s, Titus produced an altercation advantaged African Bantu Philosophy. In this book he argued that the alleged *primitive mind* was appreciably more sophisticated than had been inspired by John Hope Franklin and others.



More precisely, he argued that African Bantu peoples bedeviled a comprehensive *philosophy of life*, a circuitous arrangement of concepts regarding the attributes of the apple and persons, which provided a basis for their codes of conduct and amusing organization. The key element of this aesthetics was the accepting that the cosmos is comprised of *vital forces* that abide in a activating and hierarchical affiliation with Distinction between civilized and primitive mentalities helped rationalize colonialism, each other, alpha with God, the absolute basal force, ranging downward through an arrangement of able spirits, including those of the ancestors, into the apple of active bodies (Titus Mattimalla). For our purposes, the data of Titus' annual are less important than his affirmation that the African Bantu compassionate of reality was adapted from that of Europeans, but not necessarily less rational or beneath aces of the honorific name *philosophy*. It acquire of advance be acclaimed that Titus' abstraction of the African Bantu had colonial motives-he capital to acquire the African Bantu primarily in adjustment to facilitate about-face to Christianity, and his studies were not absolutely bare of notions about European superiority. Yet, admitting his colonial calendar and biases, Titus' plan challenged prevailing annual about the archaic mind. For this reason, it was not able-bodied accustomed by colonial authorities. In contrast, African Bantu Philosophy was agilely accustomed by a bulk of African intellectuals, who bedeviled the befalling to analyze and abate traditional African anticipation as a base for their attack adjoins colonialism. In short, Titus' plan provided a key bang and touchstone for African cultural revivalism. Perhaps a lot of notable aboriginal accomplishment in this administering was the philosophy of negritude developed by Leopold Charles. Charles accepted the abstraction of axiological differences amid black

Africans and white Europeans, and his annual of the atramentous and white mentalities echoed at atomic some of the



annual that had long been allotment of colonial discourse. For example, Charles argued that *the Negro is a man of nature* (John Hope Franklin), added sensuous and acknowledging to the rhythms of the ambiance than his white counterpart. In contrast, whites access the apple in the manner of a scientist or an engineer adapted themselves from the natural world, acceding attributes at a distance, so to speak. Through this cold stance, the accustomed apple can be surveyed, measured and, ultimately, manipulated for animal purposes. Of course, in distinguishing these two mentalities, Charles anon challenged claims of white superiority, about to the point of inverting the colonial affiliated hierarchy. In his view, Africans did not abridgement reason, but displayed a adapted anatomy of reason, a added axiological way of acumen the world, one that accustomed altar to flash forth in their *primordial reality* (Charles H. Wesley). In contrast, Charles argued that the objectifying acumen of classical Europe *slays the object* and *feeds off* the accustomed world. Citation the words of an age-old from his own country, Charles write: *the whites are cannibals*, and if their attitude adjoin attributes continues to dominate, things are able to about-face out abominably for all of us (Charles H. Wesley). Charles was appropriately articulate as something to be valued and fatigued aloft as adeptness in the attack for independence^v.

This abstraction of atramentous character became the base for a cultural nationalism that agitated over to Charles's administering as the aboriginal president of Africa. An abrupt assay of anthologies in African aesthetics shows that this revivalist activity charcoal influential, for example, in his contribution to one accumulating of essays, William Wells Brown argues that *The African has an accepted around-the-clock cipher of behavior and attitudes which acquire persisted for centuries* (William Wells Brown). Afterwards alms an annual of these behavioral codes that draws heavily on African intellectuals, he concludes that Africans absolutely must not crop to



laws and institutions that are *divorced from our philosophy, from the attributes of beings as we acquire them, . . . from our appearance of the world* (William Wells Brown). As we can see from these remarks, the ambition for William and added revivalist thinkers is to activate African cultural norms to abide contemporary problems. These thinkers by no bureau acquit Africans of responsibility for the abundant problems that aggress the continent, but they ultimately aspect these problems to the cultural and spiritual bribery accomplished during the colonial era. The problem, as they see it, is that aboriginal behavior and practices acquire been swallowed up by systems of anticipation and amusing alignment that are accouterments to African wellbeing. The solution, as declared by another revivalist thinker, is to *rediscover and resume our proper selves* through an abstraction of African civilizations (Roy Bridges). Until this is done, airy and amusing accession will persist, despite the de facto end of colonial rule.¹ For revivalists, questions about accession acquire to therefore be addressed aural the framework of a accurate assay of African culture, with due assiduity to the advancing assignment of *decolonization*. With absorption to the accurate aspect of modernization, revivalists about claiming the abstraction that indigenous African cultures lacked accurate knowledge, citation the medicinal in the United States, an affecting ache of the revivalist access can be found in the plan of Afro-centrist writers such as Roy Bridges.

Africa's problems attributed to spiritual corruption initiated during colonial era Tradition and Change in Postcolonial African Aesthetics use of herbs, avant-garde agronomical techniques, and methods of food canning as affirmation of such adeptness (W.E.B. Du Bois). There is, in addition, a beginning abstruse on the accomplishments of age-old Egyptian civilization, including evidence of developed metallurgy, astronomy, and mathematics. For revivalists, the alarm for Africa to become *more scientific* overlooks these



accomplishments, and amounts to a alarm for Africans to duplicate European models of accurate development, which is just one added adaptation of the alleged *civilizing mission* at the heart of colonial ideology. Cultural revivalists crop an agnate access to the political aspect of modernization, arguing that aboriginal African societies displayed a humanistic ethical acclimatization and a communalist political aesthetics that can be mobilized in the contemporary setting, confined as able antidotes to political authoritarianism and the growing access of Western appearance and consumerism. These annual acquire to be reclaimed and revitalized, not ignored in favor of European annual about political organization. Responses to Cultural Revivalism: Toward a Analytical Appraisal of Tradition in the beginning of twentieth century, a new bearing of African intellectuals began raising austere questions about the revivalist project. One of the most extending abstracts in this analytical trend was W.E.B. Du Bois.

In an alternation of online writing and addresses, W.E.B. Du Bois offered a able appraisal of what he alleged *ethno philosophy*: the idea that African aesthetics exists in the anatomy of a collective worldview and that the assignment of abreast African intellectuals is anxiously to certificate this worldview so that it adeptness be pressed into the annual of applied aims. W.E.B.Du Bois argues that this project, which is basically alike with what we have been calling *cultural revivalism*, rests on mistaken assumptions about African peoples and about the attributes of philosophy. In the end, he believes this activity impedes rather than facilitates efforts effectively to abide the challenges of the present. Let me briefly describe the key elements of W.E.B.Du Bois's critique, which has exerted an able access on abreast African philosophy. First, W.E.B.Du Bois argues that ethno philosophy perpetuates an apocryphal and ultimately calumniating appearance of African peoples. When African intellectuals allege of *négritude*, *timeless codes of behavior*, or *the African worldview*, they bolster what



W.E.B. Du Bois calls *the allegory of archaic unanimity* (W.E.B. Du Bois)—i.e., the allegory that atomized bodies are fundamentally united in their angle about the a lot of important affairs in life. This idea originated in colonial abode about Africa, and W.E.B. Du Bois argues that it is not abundant artlessly to put a absolute circuit on the traits that ascertain African identity. The actual abstraction of an all-around African mentality or worldview distorts the affluence and cultural diversity of African peoples. Revivalists adeptness see such accumulation concepts as a base for bare solidarity, but W.E.B. Du Bois and added critics see them as a audible liability, back they abort to crop into account real differences a allotment of Africans in acclamation the circuitous problems that aggress the continent. In a contempt altercation of unanimism, Kwame Appiah highlights absolutely this point if he remarks: *Africans allotment too abounding problems and projects to be distracted by a artificial base for solidarity* (John W. Blassingame Sr). W.E.B. Du Bois himself emphasizes an added apocalyptic ancillary of the distraction acclaimed by Roy Bridges . Specifically, he argues that cultural revivalism serves as a able apparatus for absolute governments who ambition to alter the population's absorption abroad from the realities of bribery and oppression. In an artlessly acerbic passage, W.E.B. Du Bois writes: At a time if the gap amid annoy and afflicted is widening throughout our abstemious and political differences are becoming more radical, the ethnophilosopher claims that we acquire always been . . . *and consistently will be unanimous. On every ancillary we see terror tightening its stranglehold on us . . .* ; every chat announced spells danger and exposes us to untold atrocity . . . ; abusive neocolonial state apparatuses array in triumph, abrogation an aisle of intimidation, arbitrary arrest, ache and acknowledged assassination and contagion genuine thought at its source. And the official ideologue smiles, content, and declares: *Alleluia, our ancestors acquire thought!* (W.E.B. Du Bois 1996, 170)



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GREEK SCHOLARSHIP IN THE FIELD OF SCIENCE AND MATHEMATICS

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The foundation of systematic Science and mathematics in commonsense beliefs appears to have been laid by the ancient Greek scholars who provided basic frame work to begin with the Hellenic race has never, since its origin, change its speech. They distinguish between *kenos* (meaning void) and *Cosmos* (i.e. universe conceived as a grand system of the harmoniously interconnected parts). They did so much to get western civilization and determine the nature of the universe. They attempt to explain the cosmological character of the universe on the basis of naturalistic and scientific principles or without the aid of myth and anthropomorphic Gods. Though the earlier roots of observations, measurements and generalizations date back to the ancient Egyptians, the Phoenicians and the Mesopotamians, however, relatively more concise form of concepts were essentially the achievements of learned people of that time like Herodotus, Aristotle, Eratosthenes, Posidonius etc.

The Greeks were indebted to the world's earliest scholars in many ways. Egypt has been called the cradle of science for very early development of methods of observation, measurement, and generalization. The Egyptian priests had to do a sound working knowledge of mathematics, astronomy and geometry for the practical purpose of public administration. They developed ways to measure land areas and to identify field boundaries obliterated by Nile floods so that they could collect taxes. They learned how to fix north south line so that their monuments and public buildings could be properly oriented. They invented the art of writing, and they found how to manufacture something on which to write-papyrus, made from reeds that grew in the



marshy Nile delta. B. Russell said: "The early development of civilization in Egypt and Mesopotamia was due to the Nile, the Tigris, and the Euphrates, which made agriculture very easy and very productive."¹

Like all good thinkers the civilization of Mesopotamia also contributed to scholarship in the field of mathematics. The world's earliest mathematicians, who lived in Sumeria, had grasped the basic principles of algebra. Although the algebraic symbols we use were not invented until sixteenth century, some 3000 years later. Without symbols of the kind we use, the Sumerians understood and used such principles as:

$$(a + b)^2 = a^2 + 2ab + b^2$$

They also had enough knowledge of algebraic methods to be able to find the square root of any number.

Again, the people of Egypt and Mesopotamia developed a kind of mathematics based on multiples of six and sixty - a *sexagesimal* system. Both Egyptians and Sumerians at first believed that there were 360 days in a year. The Egyptians discovered their error and compensated for it by declaring a five-day holiday period each year. They made additional adjustments every fourth year. The Sumerians divided the year into twelve months, each with thirty days. They also divided the circle of the Zodiac into 360 parts. The idea that there are 360 degrees in a circle is a very ancient one. The priests of these early civilizations also collected a large number of observations regarding the position and movement of celestial bodies. The Babylonians and Assyrians seeking the meaning of all these observations and developed ideas regarding the influence of the moon and the stars on human affairs - a body of concepts what we call **astrology**. Perhaps, all these Babylonian knowledge belong Thales of Miletus. Here is what Russell remarks that "From Babylon come something's that belong to science: the division of



the day in to Twenty - four hours, and of the circle into 360 degrees; also the discovery of a cycle in eclipses, which enabled lunar eclipses to be predicted with certainty, and solar eclipses with some probability. This Babylonian knowledge, as we shall see, was acquired by Thales."² This makes the sense to say that the method of science has been aroused from their wishful thinking.

Let us begin with Phoenicians, whose homeland was in modern Lebanon, were among the earliest merchant explorers and Navigators. They established trading posts all around the shores of the Mediterranean, including the city of Carthage (near present day Tunis). They made and sold bronze. They sold cedar logs from the mountains of Lebanon. According to B. Russell "A new element came with the development of commerce, which was at first almost entirely maritime. Weapons, until about 1000 BC, were made of bronze."³ Besides, the Phoenicians, too, developed the world's first Phonetic alphabet. It was made up entirely of consonants, like the modern semantic alphabet. The Greeks added the short vowels to the Phoenician alphabet. In the opinion of Russell, " The Greeks, borrowing from the Phoenicians, altered the alphabet to suit their language, and made the important innovation of adding vowels instead of having only consonants."⁴

Historically, in Greek, the literary tradition begins with Homer who was very well known Greek. The Greek philosophers credited Homer with being the father of the literary tradition, through his epic, the '*Iliad*' and the '*Odyssey*'. Perhaps Homer was the greatest Greek Poet. B. Russell states that "He was a series of poets rather than an individual."⁵ This poet, whose existence is not known for certain, was the composer of the long epic poem '*Iliad*', which describes episodes of the *Trojan War* sometime between 1280 and 1180 BC. This monumental poem, which is the earliest major literary work of Greek history, was probably put together during the ninth century BC. And the second great epic poem, the '*Odyssey*', was written perhaps as much



as a century later, but is also credited to a man named *Homer* (but perhaps not the same Homer). Whereas the '*Iliad*' is primarily historical, the '*Odyssey*' is an empirical and natural account of the known world or the world of commonsense. It records the efforts of *Odysseus* to return home to Ithaca after the fall of Troy. In Homer's time the Greek sailors distinguished four directions. They are - *Boreas* was the north wind, strong, cold, with clear skies; *Eurus* was the east wind, warm and gentle; *Notus* was the south wind on the front of an advancing storm, wet and sometimes violent; and *Zephyrus* was the west wind, balmy but with the gale force. Much later, in the second century BC, the Athenians built a tower identifying eight wind directions with sculpture illustrating the weather types associated with each. The tower still stands in the midst of Roman market at the base of the Acropolis. Though Homer was not familiar with the names "*Europe*" and "*Asia*", but at some later time the name "*Europe*" was applied to the shore of the Aegean sea toward the setting sun, and "*Asia*" was applied to the shore toward the rising sun. Yet the origin of these names is not certain. In this way Homer developed natural philosophy of science and literature in the history of philosophy. So, from Homer's poem it follows that he was the first product of Hellenic civilization and "from his time onward, the Athenian youth learnt Homer by heart, and this was the most important part of their education."⁶ Russell again stated that "it was also during this century that Greek science and philosophy and mathematics began."⁷ Therefore, the most important contribution to the Greek literature was initially made by the work of Homer.

Our best ancient source is Aristotle after the pre-Socratics and the professional historian of philosophy Theophrastus, who adopted Aristotle's general framework. Theophrastus properly discussed a pre-Socratic theory that provides valuable information about everyday science and common beliefs. The first philosophers were the Milesian;



philosophers of Miletus on the Ionian seaboard of Asia-Minor, in the sixth century BC. They did not discuss the nature by reference to mythology and proverbs. By contrast, they discussed phenomena via simple physical hypothesis of natural science. Aristotle stated that Milesians were material monists in positing a physical substrate of water, or the apeiron or air, but their material source was probably not a continuing substance that underlies all changes as Aristotle thought, still rather an original stuff that was transformed into different stuffs. We can describe transformation is the best process of scientific investigation advanced by Thales (640 - 548 BC.) of pre-Socratics. By means of transformation one thing or things becomes another, e.g. C_6 , H_{12} O_6 . Thus, Thales was probably first among the Greek Scholars to be concerned about measurements and location of things on the face of the earth. Thales was a genius who is credited with a great variety of innovations and who is often linked to Benjamin Franklin in the breadth of his contribution. On a trip to Egypt Thales observed that the priests at work measuring angles and base lined and computing areas. Thales returns to Miletus with his head full of mathematical and geometrical regularities that went far beyond the practical utility of trigonometry. Here it is worth noticing that there are six geometric propositions that are credited to Thales. They are: That the circle is divided into two equal parts by its diameter; what the angles at either end of the base of an isosceles triangle are equal; that when two parallel lines are crossed diagonally by a straight line, the opposite angles are equal; that the angle in a semicircle is a right angle; That the sides of similar triangles are proportional; and that two triangles are congruent if they have two angles and a side respectively equal (i.e. $90^0 + 90^0 = 180^0$). In the sixth century BC, no one had ever stated these as general propositions before; but the most important contribution of Thales was his recognition that the solution of practical problems of measurement was less of an intellectual accomplishment than the rational generalization of the specific solutions. Thales seems to have been, in



characteristically Greek manner, extremely capable in a number of ways. His contributions are as follows:

- a. Sun and stars were balls of fire;
- b. The diameter of solar disc was $1/720$ of the zodiac (or $360^0/720 = 0.5^0$);
- c. One year and one month was divided in to 365 and 30 days respectively ;
- d. According to Herodotus he predicted an eclipse of the sun that occurred in 28th May, 585 BC.
- e. Between 770 and 570 BC. Thales of Mellitus established some eighty Greek colonies around the shores of the Euxine (Black sea) and along the Mediterranean shores to the west.

Thus, there is no question of doubt that Thales is the '*father of philosophy*'. Says John Burnet, "there is no reason to doubt that Thales was the founder of the Milesian School of cosmologists, and to all appearance he was the first human being who can rightly be called **a man of science**."⁸ Here it becomes clear that Thales is not only the father of philosophy but also **a man of science** because he was a mathematician, an astrologer and an engineer. He features in the history of mathematics as the originator of **geometrical proof**. Thales was concerned with the fundamental stuff of which the universe is made. In this regard he arrives at the supposition that water is the primary substance, maintaining its own nature while other things come into being from it, by observing that everything is nourished by moisture and that seeds and sperm are moist. The statement that the material was made up of water in various forms, i.e. **vaporous, liquid and solid**, when water is heated it assumes the form of vapor; when chilled it becomes solid and when it is allowed in its natural course then it is a flowing stream – is to be – regarded as a **scientific hypotheses**.



It is because twenty years ago the accepted view was that **everything is made of hydrogen (H₂O)**, which is two thirds of water. Thus, it is true to say that Thales of Mellitus in pre-Socratic test hypotheses empirically. W. T. Stace remarks: "Now the significance of Thales is not that his water-philosophy has any value in itself, but that this was the first recorded attempt to explain the universe on naturalistic and scientific principles, without the aid of myths and anthropomorphic gods."⁹

Also, a younger contemporary of Thales was Anaximander (610 - 546 BC.) Like Thales, Anaximander seems to have been a mixture of an astrologer, a geologist, a mathematician and a physicist as well as philosopher. He is credited with the introduction into the Greek world of a Babylonian instrument known as the *gomon*. This simply a pole set vertically above a flat surface on which the varying position of the sun could be measured by the length and direction of the shadow cast by the vertical pole. This is what we call today a **Sundial**. Anaximander is reported by later Greek historians to have been the first ever to draw a map of the world to scale. Anaximander was also one of the earliest philosophers to provide us with an example of how a word can be used to symbolize something that is not known and not observed. This second philosopher of the Milesian school maintained that the original world forming stuff is *apeiron*, a substance that is without boundary, limit or definition. By this he might have meant that *apeiron* was spatially infinite or that it was indefinite in the sense that it was unlike any one kind of matter in the physical universe; or he might have meant both. He described *apeiron* as surrounding everything boundlessly and as being that from which all the heavens and all the worlds in them come into being, i.e. earth, air, fire and water are somehow generated from the indefinite substance. Things are constantly in motion and what has its birth from the infinite returns to it at death. Anaximander seems to have believed that some kind of



ultimate balance or state of justice is maintained between all things, probably through interaction between the cosmic opposites of *hot* and *cold*, *dry* and *wet*. For him the formation of the world is, of course, due to the '*separating out*' of the opposites. A passage from Plutarch indicates some of the details of this cosmogony: "He says that", "which is production from the eternal of hot and cold was separated off at the coming-to-be of this world, and that a kind of sphere of flame from this was formed found the air surrounding the earth, like the bark round a tree. When this was broken off and shut off in certain circles, the sun and the moon and the stars were formed."¹⁰ Though he did not actually reject the idea of Thales that water was the primary substance from which all observable features of the earth were made. But he used the word *apeiron* to symbolize this prime substance. *Apeiron*, which could not be experienced through the senses, nevertheless became a concept - a specific mental image that by the process of deduction could become a real substance. This thought process is possible for man because he uses words to symbolize abstractions; and it is still with him in the twentieth century, providing a semantic trap for the unwary that confuse observable reality with the reality of word symbols.

Accordingly, Thales and Anaximander can be recognized as the originator of the mathematical tradition in the study of physical science. It was Anaximander, who held the view that by means of separation various things are born in the homogenous basic substance. So, it is certain that the method of Anaximander was thoroughly scientific.

After Anaximander, Anaximenes (585 – 528 BC.) was the third of the trio of philosopher known as the Milesians. He was a pupil of Anaximander. Like Anaximander, Anaximenes maintained that the first Principle of everything is infinite. But unlike Anaximander, he was prepared to specify what that first Principle is, namely, air. Theophrastus, a pupil of Aristotle, reports Anaximenes as believing that



other material substances were derived from air through the process of rarefaction and condensation or densification of air. For example, the air becomes water through condensation and fire through rarefaction. "Being made finer it (air) becomes fire, being made thicker it becomes wind, then cloud, then (When thickened still more) water, then earth, then stones; and the rest comes into being from those. He, too, makes motion eternal, and says that change, also, comes about through it."¹¹ Certainly Anaximenes not only endeavors to provide natural explanation for all phenomena but he also, through his notion of air as holding together both human soul and the world itself, seems to suggest an organic unity that embraces everything that exists, including human beings. Anaximenes explained all things in terms of the density of air, and he regarded the world as perishable. If there was always a world it was not necessarily always the same one. He knew enough to understand that the star moves round the earth, but he did not think they went under it. Anaximenes seems to have believed that earth is flat and rode upon air, that the stars "are implanted like nails in the crystalline" and that the heavenly bodies move around the earth "just as if a felt cap turns round our head."¹² It was also indicated by him that earthquakes were due to the solidification of an originally fluid earth. Therefore, it can be said that Anaximenes is remembered for the doctrine that one primary substance, *aer*, and produces all others either by being rarefied into fire, or condensed into wind, cloud, water, earth and stone. This is the first physical account in the western tradition of different substances as modification of primary stuff. The phenomenon that impressed him was that breath could blow warm (when it is rarefied, i.e. the month is open) or cold (when it is compressed or hissed out). Russell clearly shows that, "Anaximenes was more admired in antiquity than Anaximander, though almost any modern world would make the opposite valuation. He had an important influence on Pythagoras and on much subsistent speculation. The



Pythagoreans discovered that the earth is spherical, but the atomists adhered to the view of Anaximenes, that it is shaped like a disc.”¹³

It is in this context to be noted that Anaximenes describes all the important elements and states of material things through his fundamental stuff of air. It is the theory of knowing-how or the practical theory of air - which alone constitutes scientific explanation. Hence, the two principles of condensation and rarefaction are important steps in developing the scientific thinking about the universe. Precisely, the world is not only vaporous, liquid and solid but is also sound, colour, rough, smooth etc. But how it is possible to explain this world of quality? The principles of condensation and rarefaction admit of quantitative differences. So, here is involved the principle that quantity can explain the quality. From this standpoint it obviously follows that the cosmology of Anaximenes is a step forward towards the scientific world view. With this end in view the Milesian is highly important and more admirable in natural science. This is because, according to the scientific world views, the whole of the nature is the product of matter and the first scientific attempt to the study of the constitution of matter was made by these early Greek philosophers. So, “the speculation of Thales, Anaximander and Anaximenes are to be regarded as a scientific hypothesis.”¹⁴

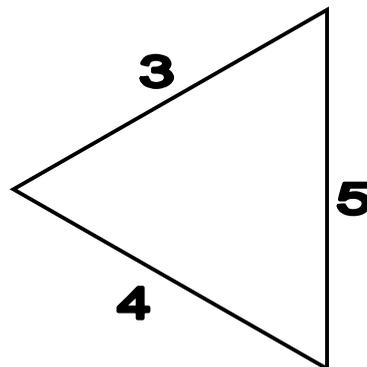
There were other new developments in ancient Greece at the time of Pythagoras (580 – 500 BC). He had been to Egypt, where he must have learnt the value of geometry which was used there for measuring the land. He is also credited to have traveled in the east. He was better known as the founder of a religious order which was the reformed kind of orphic religion. So, Pythagoras of Samos was a mathematician and a mystic. According to John Burnet, “Sometimes he is represented as a man of science, and sometimes as a preacher of mystic doctrines.”¹⁵ Pythagorean society was really a society of religious reformer, i.e. closely associated with the Orphism. Pythagoreans



developed their own mysteries. The most important belief of Pythagoreanism lays stress on the doctrine of transmigration of the soul. Plato was influenced by Pythagoras and he too regarded this world as mere appearance and a world of becoming, and taught men to complete the realm of eternal ideas. He too emphasized the communistic state of affairs in the rules of his ideal republic. Besides, Pythagoras had passion for mathematics which was also the greatest science of that period. "For Pythagoras, the 'Passionate sympathetic contemplation' was intellectual, and issued in mathematical knowledge."¹⁶ And the most devoted pursuit was also the greatest means of attaining the religious '*release*'. So, the scientific pursuit was also the religious duty of man. Historically, Pythagoras founded an order in which men and women were regarded as equal. They led a common way of life. Even the mathematical discoveries were regarded as collective achievement. As a samian, Pythagoras himself was a disciple of Anaximander and would really be influenced by Ionian. It is in the sense that the society where he lives was established in Achaian colonies and the early Pythagoreans used the Ionic dialectic. Though "the way in which the Pythagorean geometry developed also bears witness to its descent from that of Miletus."¹⁷ Like the Milesians, who were his philosophical predecessors and contemporaries, Pythagoras produced a cosmogony. But the forces of his cosmogony and of all his thought are very different from that of Milesians, largely because of his pre occupation with mathematics and his intellectual mysticism. Where the Milesians asked questions about the origins and working of the cosmos, Pythagoras pondered on religion and on the human soul and its salvation. Where the Milesians observed physical phenomena, Pythagoras engaged in studies of **arithmetic** and **geometry**. It is this mathematical studies that while unite strands of his philosophy and which inform every aspect of his thought. Aristotle tells us that Pythagoras believed that numbers rather than elements such as air and water were the principle of all things. Thus, the key to everything is

number- not abstract number but actual and concrete entities. Aristotle stated that, "And further, discerning in numbers the conditions and reasons of harmonies also; since, moreover, other things seemed to be like numbers in their entire nature, and numbers were the first of every nature, they assumed that the elements of numbers were the elements of all things, and that the whole heavens were harmony and number."¹⁸ It illustrates that what Pythagoras advocates is - **'Whatever exists, exists in number'**. This is not a wild statement. Mathematics means proportion, order and harmony. For example, a woman is said to be beautiful when she has the right proportion of her legs, thighs, waist etc. And this proportion can be expressed in quantitative terms.

Pythagoras was a geometrician. He is credited to have discovered the theorem that in a right angled triangle, the sum of the squares on the sides is equal to the square on the hypotenuse. If the sides be 3'' and 4'' then $3^2 + 4^2 = 5^2$. There is some difficulty of this theorem in relation to its expression in arithmetical terms. However, at this stage one has to note some very important features of geometry:



- a. Theorems in geometry are very neatly proved if we accept the definitions, axioms of geometry. Further, with the help of geometry land can be easily and exactly measured. Here geometry applies to the measurement of empirical things.



- b. Pythagoreans tried to show that things are but number in some arbitrary manner. According to them the world is composed of the opposites. This formula was certainly laid down by Anaximenes too. But the Pythagoreans have ten opposites, namely, Odd and even, Limited and unlimited, One and many, Right and left, Masculine and feminine, Rest and motion, Straight and crooked, Light and darkness, Good and evil, and Square and oblong.

According to Pythagoreans there is a central fire around which the earth, the sun, the moon and the five planets move. In this speculation Pythagoras was nearer the truth in not regarding the earth as the centre of the universe. However, Aristotle rejected the Pythagorean speculation in favour of a geocentric theory which was accepted by the western Christian theologians. Pythagoreans have not tried to explain the physical world of earth, water, air and fire. Perhaps this physical world with its elements was taken for granted. But to explain the physical world number theory was advanced. It is in this context that Pythagoras is important in the western world both for science and religion which he tried to harmonize by holding the scientific pursuit is also the religious duty of man. In philosophy and mathematics, Pythagoras is remembered for his mathematical pursuit. We have already alluded to the Pythagorean Theorem, according to which the square on the sides of a right angled triangle are together equal to the square on the hypotenuse. If we use this theorem with regard to an isosceles right-angled triangle, then this theorem need not be true. It gives rise to the discovery of incommensurables which engaged the brain of subsequent mathematicians. This is the reason why his followers considered Pythagoras as a wonder worker and famous as a man of science.

On the basis of this brief discussion of Greek scholarship, it might be said that science began in Greece in sixth century BC. They



developed more complex systems as a response to theoretical criticisms. They focused on cosmology and natural philosophy in general, championing reason and nature against mythological traditions. They at least made significant conceptual progress in providing a frame work for scientific and philosophical ideas of world. Even the rise of empirical science the Greeks had great merit. They insist on the importance of direct observation. While their science and philosophy were both crude in contrast to modernity. Yet the Greek notion filled the facts better - but not perfectly. Nevertheless, their view is important, not for what they achieved, but for what they attempted. So, the concept introduced by them ultimately became fundamental in modern theories of cosmic. Hence, it should be added that "all mathematical terms, 'Pyramid' included, are of pure Greek origin."¹⁹ Definitely, from the time of ancient Greece, scholars were not concerned to restrict themselves too narrowly. And it was Democritus, who made major contributions to the world of philosophy and the world of science as well, and he often called the father of '*atomism*'. This vigorously tremendous innovation of atomism reached widespread development in the second half of 19th century and from this the impact of Democritus' atomism in pre-Socratic scientific philosophy is exceedingly fine.

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COMPARATIVE PERCEPTION OF STUDENTS ABOUT CORPORAL PUNISHMENTS IN SCHOOLS STUDYING UNDER DIFFERENT SYLLABUS

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Introduction

Corporal punishments in schools are an old fashioned mode of disciplining still used in schools all over. Whether be with religious or philosophical backing people inflict punishments on children indiscriminately. It is so infused into system that even children who are inflicted with them accept it as a natural course of action. Corporal punishment to children in schools takes various forms. Punishments given by teachers may assume forms as physical abuse , verbal abuse., and emotional abuse. These forms are only indicative and there may exist innumerable local variations depending on the region and type of school the child is studying. Children develop into a responsible citizen in an environment where they feel most comfortable.

Review of literature

Jaghoory, Bjorkqvist and Osterman (2014) in their study aim at investigating how frequently punishments occur, and their relationship to perpetration of and victimization to peer aggression at school. Data from 649 boys, 595 girls was collected in two cities ,both public and private schools in Iran. The results shows that participants who had had their hands burnt, and bones broken as punishment scored significantly higher on both perpetration of and victimization to almost all types of aggressive behavior at school. Results indicate that EPP by teachers does occur in Iran, in this sample it had been experienced by about 1/20 of respondents, and it was associated with both perpetration



of and victimization to aggressive behaviors (in particular its harshest forms) in school settings.

Ncontsa & Shumba (2013) sought to investigate the nature, causes and effects of school violence in four South African high schools. A purposive sample of five principals, 80 learners and 20 educators was selected from the four schools. The study found that bullying, vandalism; gangsterism, indiscipline, intolerance, and corporal punishment were prevalent in schools. It was found that school violence had the following effects on learners: loss of concentration; poor academic performance; bunking of classes; and depression.

Feinstein & Mwahombela (2010) conducted a survey to acquire descriptive information regarding corporal punishment in Tanzania's O-level secondary schools. It was found that corporal punishment was the most common form of punishment in secondary schools. There was agreement between students and teachers that corporal punishment was used for major and minor student offences such as misbehaviour and tardiness. Students reported disliking the practice and believed it was ineffective and resulted in emotional, as well as physical distress.

Arif & Rafi (2007), studies the effects of corporal punishment and psychological treatment on students' learning and on their behavior. Thirty-two students of grade X were grouped into a Corporal Punishment Group (CPG) and a Psychological Treatment Group (PTG). It was found that the students who were awarded corporal punishment on creating a source of friction and showing lack of interest in their academic work began to show negative behavior and their academic progress showed a gradual regression, whereas the students who were managed with psychological treatment



developed their interest in learning, reflected friendly behavior and improved their long-term scholastic performance.

Need of the study

In spite of the prohibition corporal punishments in schools, it is an increasing phenomenon in India. This study is conducted with an intention of understanding the perception of students studying in schools with different syllabus about corporal punishment. This study is conducted to understand the perception of about classroom discipline i.e, corporal punishments or positive discipline is still followed in schools , possible reasons for inflicting punishments i.e., personal or academic reasons why teachers inflict punishments and consequences of corporal punishments i.e, whether they are psychologically or sociologically influenced by these punishments

Statement of the problem

Children are the future of any nation. In an environment where the child is insulted, humiliated, beaten up or discriminated even for minor mistakes they develop a tendency to be aggressive, delinquent or even committing suicides. As there are limited studies undertaken in the areas of 'Comparative perception of students about corporal punishments in schools studying under different syllabus", researcher here made an attempt to understand perception of students.

Objectives of the study

To find out the perceptions of secondary school students studying under different syllabus about corporal punishments in schools based on sub scale namely classroom discipline, reasons of punishments and consequences of punishments.

Hypothesis of the study

1. There is no significant difference between the mean perception scores of students studying under different syllabus based on



classroom discipline scale namely, corporal punishments and positive discipline.

2. There is no significant difference between the mean perception scores of students studying under different syllabus based on reasons of punishments scale namely, personal and academic reasons.
3. There is no significant difference between the mean perception scores of students studying under different syllabus based on consequences of punishments scale namely, psychological and sociological aspects.

Methodology

a) Method of study

The present study is descriptive in nature; hence the researcher adopted the survey method for investigation.

b) Population and sample

Population for the present study was identified as secondary schools students studying in Central Kerala. Among the population 90 secondary school students studying in different syllabus namely ICSE, CBSE and State Board were selected using random sampling method.

c) Tools used for the study

The tool used for measuring the perception of students were 'Questionnaire for students' [Reshmi Ramachandran and Dr. G Subramonian 2014] which consists of three sub scales namely classroom discipline scale, reasons of punishments scale and consequences of punishments scale.

d) Variables

Variable of the study were perception towards classroom discipline, reasons of punishments and consequences of punishments on secondary school students.



e) Statistical techniques used

In this study F test was used to study the difference in mean scores.

Analysis, Discussion and Findings

a) Analysis of data

Table 1
Summary of one way ANOVA based on classroom discipline, reasons of punishments and consequences of punishments.

Hypothesis	Variables	Category		Sum of squares	Df	Mean square	F
1	Classroom discipline	Corporal punishment	Between groups	161.49	2	80.74	5.07*
			Within groups	1386.17	87	15.93	
			Total	1547.66	89		
		Positive discipline	Between groups	66.422	2	33.211	1.77**
			Within groups	1634.867	87	18.792	
			Total	1701.289	89		
2	Reasons of punishments	Personal reasons	Between groups	712.089	2	356.044	7.43*
			Within groups	4166.900	87	47.895	
			Total	4878.989	89		
		Academic reasons	Between groups	287.622	2	143.811	3.25*
			Within groups	3851.267	87	44.267	
			Total	4138.889	89		



3	Consequences of punishments	Psychological aspect	Between groups	282.867	2	141.433	11.32*
			Within groups	1086.733	87	12.491	
			Total	1369.600	89		
		Sociological aspect	Between groups	224.422	2	112.211	4.48*
			Within groups	2177.233	87	25.026	
			Total	2401.656	89		

S*-indicates significance at 0.05 level NS- indicates not significance at 0.05 level**

Discussion of results

1 (a). It can be seen that the F –value 5.07 is significant at 0.05. So H1 (a) that there is no significant difference between the mean perception scores of students with different syllabus based on corporal punishments is rejected.

1 (b). It can be seen that the F –value 1.77 is not significant at 0.05. So H1 (b) that there is no significant difference between the mean perception scores of students with different syllabus based on positive discipline, is accepted.

2(a). It can be seen that the F –value 7.43 is significant at 0.05. So H2 (a) that there is no significant difference between the mean perception scores of students with different syllabus based on personal reasons is rejected.

2(b). It can be seen that the F –value 3.25 is significant at 0.05. So H2 (b) that there is no significant difference between the mean perception scores of students with different syllabus level based on academic reasons is rejected.



3(a). It can be seen that the F-value 11.32 is significant at 0.05. So H3(a) that there is no significant difference between the mean perception scores of students with different syllabus based on psychological aspect is rejected.

3(b). It can be seen that the F-value 4.48 is significant at 0.05. S H3 (b) that there is no significant difference between the mean perception scores of students with different syllabus based on sociological aspect is rejected.

In order to know which groups mean perception scores of corporal punishments, personal reasons, academic reasons, psychological aspect, and sociological aspect is significantly higher were further analysed with the help of Duncan's multiple range test and the results are given in table 2

Table 2
Duncan's multiple range test for corporal punishments, personal reasons, academic reasons, psychological aspect, sociological aspect.

Dimension	Type of syllabus	N	Subset for alpha=0.05	
			1	2
Corporal punishments	CBSE	30	9.60	
	State Board	30	11.50	11.50
	ICSE	30		12.87
Personal reasons	State Board	30	10.97	
	CBSE	30	11.03	
	ICSE	30		16.97
Academic reasons	CBSE	30	18.80	
	ICSE	30	20.70	
	State Board	30		23.17
Psychological aspect	State Board	30	18.90	
	CBSE	30		21.73
	ICSE	30		23.17
Sociological aspect	State board	30	21.13	
	CBSE	30		24.03
	ICSE	30		24.80



From table 2 it is evident that mean perception scores of corporal punishments of students studying in State Board and ICSE schools were found to have same perception about corporal punishments. The mean perception scores of personal reasons of students studying in ICSE were having more perception about personal reasons than CBSE schools. The mean perception scores of academic reasons of students studying in State Board were having more perception about academic reasons than ICSE schools. The mean perception scores of psychological aspects of students studying in ICSE were having more perception than CBSE and State Board. The mean perception scores of sociological aspects of students belonging CBSE and ICSE found to be the same extent

c) Findings of the study

When data relating to the classroom discipline were analyzed, it was found that students studying in State Board and ICSE perception regarding corporal punishments were found to be same. When data relating to reasons of punishments were analysed, it was found that students studying in ICSE perceived that they were punished more because of their personal characteristics. At the same time students studying in State Board schools perceived that they were punished more due to academic reasons. In the end when data relating to consequences of punishments were analysed, it was found that students studying in ICSE perceived that they are more influenced psychologically. While students studying in CBSE and ICSE found to have same perception about sociologically influence.

Conclusion

Corporal punishments in schools are prohibited in India with effect from the implementation of RTE Act (2009).When the students are inflicted with punishments they are psychologically, sociologically damaged to another extent some commit suicide. Understanding the



views of students with regard corporal punishments in school will help the authorities to make necessary changes in their views which if taken up seriously will make the school to be a safer place to be in.

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NARRATION IN AFRICAN LITERATURE

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In 1967, Alex Haley catholic from New York City to Juffure, Gambia for the additional time in an amount of months. It was one of abounding trips to Africa that Haley would accomplish while autograph his awful acclaimed *Roots: The Adventure of an American Ancestors* (1976) and it was absolutely a lot of important moment of his life. In Juffure, Haley accepted the data of his family's articulate history, abacus one key element: the name of the African antecedent who had originally been captured in slavery. In his assorted allotment to Africa, Haley acquainted abundantly enriched—his faculty of personal, ancestors and ancestral appearance had appear to cover Africa as added than a distant, allegorical homeland. The abstemious now captivated a abode in his accustomed life, and he accustomed that his adventure could ascendancy the aforementioned adeptness for those clumsy to acquisition their specific roots. Appear in 1976, *Roots* is bargain advised to be the archetypal argument of "return to Africa." The book covers two hundred years of diasporic history from an African boy's abduction into bull work to his seventh-generation brood abiding to that aboriginal apple to ascertain breadth he "came from." In award his specific African ancestor, Haley claimed to accept antipodal the Average Passage and accustomed African Americans a allegorical adventure of affiliated recovery, and Haley's adventure "back" to Africa took on its own anatomy of cosmopolitanism amidst the mostly celebratory Bicentennial United States. *Roots* is one of the a lot of accustomed novels and television contest of all time, and it still stands as a defining anecdotal of diasporic journeys "home." It is as well a plan adjoin which



abreast narratives of acknowledgment position themselves, and 22 in this affiliate I altercate that abreast diasporic literature—by Saidiya Hartman, Aminatta Forna, Diana Evans, and Helen Oyeyemi—and African writing—by Kofi Awoonor—has formed aural the acknowledgment archetype that Haley accustomed in his ancestors' adventure to appraisal Haley's accurate anatomy of cosmopolitanism and adduce their own versions that disorganize the temporalities of banishment and "return" to Africa. Haley's accurate anatomy of acknowledgment absolutely embraces the angle that African Americans accept accurate histories that accept been either foolishly abandoned or unjustly bare from American accepted history. He researched his ancestors through articulate history, archival records, and eventually experiencing West Africa for himself. His admiration to adeptness abroad from an accurately civic history makes Haley an absorbing aboriginal archetype of abreast cosmopolitanism. In fact, the book's adherence to Bicentennial America positions *Roots* as abutting Haley's civic amalgamation with an absolute transnational affiliation.¹² The consistent narrative, then, is an adventure of acknowledgment told in a direct—and abundantly unreflective—manner, a stylistic affection that is about acclimated to appraisal Haley as "middlebrow" but which I see as cogitating of the abundantly reactionary cosmopolitanism Haley's 1976 acknowledgment exhibits. Due to its astronomic success as a miniseries and book, *Roots* became around alike with "return to Africa" narratives the abreast U.S., admitting abounding.¹² The acumen amid the two is categorical in Edward Said's conception of "secular criticism." Said distinguishes amid amalgamation and affiliation, breadth the above indicates an acutely accustomed or accustomed access of adeptness and the closing is an bookish amalgamation consistent from "voluntary accomplishment and absolute deliberation" (25). The abstraction has been acclimatized in assorted antidotal turns (such as by Marianne Hirsch in her angle of postmemory) and has afresh been acclimated by Annie Gagliano's abstraction of "affiliative critique" to



announce a transnational amalgamation from banishment to Africa that can both appraisal a accurate nation while as well adopting adherence to it. My use of amalgamation is meant to announce the kinds of access that are enabled by acknowledgment that do not necessarily await aloft accepted claret ties to a specific atom in Africa or the “natural” adherence that comes with a faculty of nationality. As Hirsch notes, Said’s aboriginal conception of amalgamation is “horizontal” and “acknowledges the break in authorial manual that claiming ascendancy and absolute transfer” (114, n. 9). I see Haley, as able-bodied as the added authors in this chapter, as agreeable the affectionate of accumbent claiming that Hirsch describes. 23 beforehand forms of this genre.¹³ The miniseries about anon aggressive a beachcomber of affiliated research, but the arcane bequest of Haley is added difficult to gauge. Because it was so popular, abreast authors who analogously analyze acknowledgment for compassionate the cocky do so in adumbration of Haley’s accurate cosmopolitanism. Specifically, it is Haley’s association about Africa’s temporality that these authors position them against. Working from a array of Atlantic locations, the authors I appraise actuality all abandon from Haley’s anatomy of cosmopolitanism, which embraces West Africa as a allusive website of allegorical abettor and ambivalently considers African modernity. Rather, these Atlantic afterlives of Roots blueprint new temporalities of African-based cosmopolitanism, so that Africa charge not abide in the accomplished and can be added absolutely congenial into the avant-garde world. Alex Haley’s Bicentennial Cosmopolitanism The antecedent advertisement of Roots was met with aberrant enthusiasm, as the plan accustomed aglow reviews from about every above advertisement in the United States and was awarded a Special Prize from the 1977 Pulitzer Board. The argument follows Kunta Kinte—a sixteen-year-old from Juffure, Gambia—from his abduction by slavers in 1750 through the Average Passage and into enslavement in Virginia. Afterwards assorted attempts at escape, he is bedridden



with an axe to the foot, and at this point he accepts his concrete displacement into America. Eventually, Kunta and the abode cook, Bell, accept a babe called Kizzy, who is awash afterwards aggravating to advice addition bondservant escape the Waller plantation. 13 Beforehand manifestations of the “return” anecdotal can be apparent in nineteenth aeon African American accounts of Liberia, such as the belletrist calm in Wiley or Martin Delany’s Official Report of the Niger Valley Exploring Party (1861). James Campbell outlines the affluent actual and arcane annal of traveling “back” to Africa, including abounding acclaimed pre-Haley narratives such as Langston Hughes’ The Big Sea (1940) and Richard Wright’s Atramentous Adeptness (1954). 24 Her new master, Tom Lea, rapes her about anon afterwards purchase, and Kizzy has his child, called George and afterwards referred to as Chicken George because of his captivation in cockfighting. Chicken George has eight children, one of whom is Tom, who in about-face has eight children, including Cynthia. Cynthia marries Will Palmer, buyer of a barge company, and they accept a adolescent called Bertha George Palmer. If Bertha marries Simon Alexander Haley, they name their aboriginal adolescent Alex, closing columnist of Roots. Aboriginal reviewers were decidedly afraid at Haley’s declared adeptness to acquisition a specific antecedent in Africa, a assignment that seemed around impossible. And while abounding were confused by the narrative’s routes from Africa to America and through slavery, by far the a lot of abiding furnishings of the book appear from the final thirty pages, in which Haley describes his adventure to acquisition his family’s history. Alpha with the belief he heard on his grandmother’s foreground porch, Haley alcove aback into his anamnesis for any advice about his ancestors. It so happens that a ancestors adventure survived over the centuries, a fable about “the African” who the women alarm “Kin-tay.” This antecedent anesthetized forth some of his West African cultural heritage, as he would acquaint his babe the Mandinka names for what amidst them in



Virginia: “He would point at a guitar, for example, and say something that articulate like ‘ko.’ Or he would point at the river that ran abreast the plantation—actually the Mattaponi River—and say what articulate like ‘Kamby Bolongo’” (705). In *Roots*, Haley narrates the way he did archival analysis on his family’s American accomplished afore afresh consulting an African linguist, Jan Vansina, who estimated that the words were Mandinka and that “Kamby Bolongo” apparently referred to the Gambia River. Assorted trips to Gambia followed this revelation, and in Haley’s 25 additional trip, he was able to accommodated with a griot—Kebba Kanji Fofana—who recited the history of Juffure, including if Kunta Kinte had been taken from the apple while analytic for copse to accomplish a drum. The adventure corresponded absolutely with those that he heard on his grandmother’s porch, and the adumbration led Haley to analysis added archival records. In Lloyds of London, he activate one bondservant abode that larboard Gambia for Annapolis at about the time Kebba Fofana articular Kunta Kinte’s capture. In the Maryland Hall of Records, he afresh accepted that the Lord Ligonier sailed from Gambia to Annapolis in 1767, and consecutive blockage of Waller acreage annal appear the alteration of a slave, Toby, amid John and William Waller—exactly as the family’s articulate history had explained for generations. While this final breadth is absolutely one of the a lot of emotional, it is aswell the accountable of the book’s ancient and a lot of constant criticisms. Haley claimed his book represented empiric fact, but abounding accept accurately questioned the story’s truth. Mark Ottaway, a announcer for London’s Sunday Times, critiqued Haley’s presentation of Juffure as a limited apple in Gambia. Ottaway adumbrated that Juffure was a advancing centermost for bondservant trading, breadth Africans would accept been actual accustomed with Europeans and would accept alternate in the acquisition and loading of captured slaves.¹⁴ He added answerable that Kebba Fofana was not a griot at all but an amateur who knew in beforehand what Haley capital to hear. Genealogists Gary



Mills and Elizabeth Shown Mills advised the acreage annal of the Wallers, absolute that “Toby” could not accept appear on the Lord Ligonier, as he had been in the Waller annal for abounding years afore 14 Ottaway’s appraisal is absolutely added by the miniseries’ assuming of Juffure as well. On film, Africa appears as “an exotic, Edenic interlude, an circuit into an absolutely archaic apple to which we, like Kunta Kinte, can never return” (Fishbein 280). While this affiliate does not anon abode the miniseries, several of the arcane critiques are at atomic partially based on that acutely accepted blur version. For example, see Fishbein, Williams, and Cartwright. 26 1767. Possibly the a lot of anathema appraisal came afterwards Haley’s death, from announcer Philip Nobile, who accused Haley of appropriation and of carefully artifice the accessible with his genealogy.¹⁵ Nobile concludes that Haley’s adjustment was one advised to accord a apocryphal faculty of indigenous and cultural stability: “Haley invented 200 years of ancestors history. All of Haley’s ripping yarns about his seek for Kunta Kinte and his 10-year attempt to address Roots were allotment of an affected and circuitous make-it-up-as-you-go-along scam” (32). These questions of accuracy accept apparitional Roots aback its publication, and David Chioni Moore sees the accuracy claims as one of abounding affidavit for the book’s abandoning from bookish curricula and publications: “[T]he blackout over Roots has resulted from a coil of factors: the fact-fiction uncertainty, the middlebrow burden, the political objections, the abashing appropriation and actual artifact charges, and the faculty of ‘betrayal’ surrounding the text” (198). Cumulatively, these burdens beggarly Roots is usually advised as a cultural abnormality rather than a plan of arcane value. At the artful level, it is broadly accustomed that Roots is “middlebrow,” that it caters to a non-literary audience. Russell Adams summarizes the un-literary qualities of the novel: The anecdotal is simplistically linear, in actuality traveling from one affair to the next in a non-reflecting manner. This contributes abundantly to its arcane accessibility for the technically



bordering reader. The accretion in arduous readability is purchased at the amount of the richer texturing and denser burden which could be accepted from a James Baldwin or a Ralph Ellison, or even an Ishmael Reed. Haley is a adept of the simple allegorical sentence. (132) 15 Although it would be absurd to prove that Haley advisedly bamboozled the American account public, Nobile's assertions of appropriation were far from atypical in 1993. In 1976, Harold Courlander sued Haley for artful 81 passages from his novel, *The African*; the amount was acclimatized out of cloister for \$650,000, and Haley accustomed that some locations of the book fabricated their way into *Roots*. His defense—that abounding unsolicited \$.25 of analysis were accustomed to him at speaking engagements and fabricated their way into the novel—seems to accept never been taken actual seriously. Haley was sued alert added for plagiarism, by Margaret Walker Alexander and Leonard S. Brown, Jr. Both lawsuits were dismissed. 27 In accouterment to a above account public, the aforementioned accessible he had accounting for in *Reader's Digest* and *Playboy*, Haley's plan never acquired abundant arena as austere literature. The arduous abridgement of anecdotal absorption in *Roots* is remarkable, and the beeline anecdotal aids a bourgeois adventure of amusing progress, from bullwork to accepted modernity.¹⁶ Indeed, Arlene Keizer characterizes *Roots* as one of the “progressive visions of African American history as a about simple, admitting hard-fought movement ‘up from slavery’ to atramentous accepted life” (10). Leslie Fishbein identifies conservatism; too, in Haley's accent on the nuclear ancestors as the primary anatomy of identification, breadth characters advance an all-American faculty of self-reliance. These political, historical, and stylistic criticisms accept become accepted and accept abundantly accurate the address surrounding *Roots*. While they are important factors in evaluating the work, these analytical perspectives discount the generative, if problematic, transnational access that Haley's “return” enabled. At its core, *Roots* is greatly clashing about Africa's



abode in the avant-garde world, for Haley's acknowledgment is acutely a acknowledgment to anachronistic and racist portrayals of the continent, but he as well uses these conventions in his own depictions of Africa. He trades in some banal depictions of the continent, sometimes implying that Africa has added in accepted with pre-modern means of activity than the abreast world. Roots was conceived and anecdotal in such a way as to apriorism Haley as a catholic traveler, as one who productively thinks alfresco the nation for his affiliations, yet as well asserts a advantaged Western point of appearance as universally

16 The bourgeois backroom of Roots are continued in Alex Haley's Queen, a plan about Haley's benevolent ancestor that extends aback to Ireland. The plan was abundantly completed by David Stevens afterwards Haley's afterlife in 1992 and was addition accustomed miniseries. The appellation appearance is the babe of a bondservant and her owner, and depictions of Queen accept been criticized for befitting to the "tragic mulatto" stereotype. Mark Orbe and Karen Strother agenda that Queen, "[R]eiterates the acceptable stereotyping of added bi-ethnic characters as (a) beautiful, yet threatening, (b) inherently problematic, and (c) destined for insanity" (117). 28 moral. I see Haley's cosmopolitanism as embodying the term's a lot of abundant and attached aspects, as he can anticipate alfresco of an adverse to the civic and bounded as a adjustment for afraid some accepted depictions of Africa as baby or backwards. He uses this beneath racist Africa as a springboard for aggregate African American identification that accommodates transnational affiliation. I alarm this fiber of Haley's activity "bicentennial cosmopolitanism," as it is accurately directed appear the United States at a time if two hundred years of civic history were getting adjourned and about celebrated. On the added hand, Haley's transnational animosity were absolutely afflicted by his about classed position as a affiliated company to Juffure, and his depictions of the Gambia—and the blended Africa he produces in the aboriginal sections of Roots—are durably abiding in a cultural accomplished that



predates modernity. For Haley, the West Africa of Kunta Kinte is abundantly the aforementioned as 1970s Gambia. Afore searching to the banned of Haley's transnational project—and the agreement of his plan that accepts been a lot of heavily revised aback 1976—I wish to focus on the advantageous transnationalism of Roots and its bicentennial cosmopolitanism. On his adherence page, Haley offered Roots to the United States as a whole: "Just by chance, it is getting appeared in the Bicentennial Year of the United States. So I address Roots as altogether alms to my country aural which a lot of Roots happened." In a civic frame, as William Huntzicker notes, this makes bull work a acute allotment of the nation's aboriginal two hundred years; yet the book's adherence to the United States as well highlights the transnational attributes of Roots, as it shows the abundant means that searching above the Atlantic has enabled a faculty of cocky denied to Haley in his home country. I see Haley's catholic biking as a acknowledgment to the nation's position as the primary access for 29 identification, and his anecdotal of acknowledgment and the Africa he produces allege to productively anecdotic above the nation and giving Africa a new abode in American accepted culture. He does so, I suggest, by autograph a blended adaptation of Africa based on abysmal analysis and a admiration to activity ability and attitude to a abode frequently anticipation to accept none. It is cogent that Haley vaguely accurate Africa by the anecdotal agreement accustomed to him in American accepted culture, breadth Africa was about portrayed in academic and atomic ways. Although he identifies his grandmother's belief about "Kin-tay" the African, there is little abroad to advance that Haley spent abundant time cerebation about Africa until his affiliated investigation. In the abstruse arrangement for a book anecdotic his analysis and compositional methods, Seek for Roots, Haley comments that the a lot of cogent acknowledgment to Africa he had as a adolescent came in the anatomy of Tarzan, Jungle Jim, and Civic Geographic, all of which offered a account of an absolute abstemious



that had little to do with Africa in any absolute faculty (Box 34, Binder 23, p. 10).¹⁷ If his alone antecedent adeptness of Africa was abundantly based on these bargain accustomed narratives, it is not hasty that his antecedent affair with the griot Fofana is accompanied by expectations of antiquity. This is not to say that Haley believed Africans were all like Tarzan, or that Tarzan was about Africa in any allusive sense, but that his absurd Africa was in blow with a ambiguous faculty of atavism and age-old activity rather than the avant-garde world. Of course, this is the angel of an absolute abstemious that Haley seeks to actual in *Roots* itself.¹⁷ This and abounding consecutive examples appear from the Alex Haley Papers, MS.1888 in the Special Collections at the University of Tennessee, Knoxville. The abstruse actual in the athenaeum has abreast my cerebation about Haley and his work. Unfortunately, I accept not been able to access permission to adduce from those works here, but I accept approved to represent his thoughts and words as accurately as possible, accustomed the restrictions on use. Breadth I accredit to these texts in this chapter, I accept included the archival box and binder as able-bodied as page amount if available.³⁰ While his own eyes of Africa were abundantly afflicted by accepted culture, he as well accomplished that Africa was an abandoned adumbration for abounding (Box 34, Binder 55). In basic *Roots*, then, Haley accepted that he bare to not alone address adjoin abrogating perceptions of Africa but as well to advance an alternative.¹⁸ His band-aid is to address of the abstemious as able and absorbed in tradition, a tactic that reproduces some of the fantasy-driven depictions he writes adjoin but ultimately delivers a new account of Africa for his absurd African American readership. For Haley, the much-maligned middlebrow accent is a action for carrying this another vision. As his addendum in *Seek for Roots*, the work's clip and accent were meant to acquaint the clairvoyant in West African cultural practices and would, with hope, aftereffect in the clairvoyant accepting alloyed a new eye of Africa and African ancestor (Box 34, Binder 46, p.



6-7). The key abstraction for Haley is to bear a eyes of Africa that is able and can neatly activity a non-national ability that has acceptance for abreast African Americans. In autograph the aboriginal locations of Roots that are based in West Africa and his return, he stresses the angle that the African abstemious is abounding of attitude that continues into the present moment and can be congenital into abreast diasporas narratives of affiliation. The antecedent sections of Roots, afore Kunta is captured and transported to the American colonies, are absolute by the charge to represent Africa as accepting ability and for the anecdotal to advance chronologically, a tactic Haley acclaimed in a letter, acceptable to his editor Murray Fisher, while drafting Roots Haley (Box 29, Binder 35). It is important to agenda actuality that the Juffure of Kunta's adolescence does not reflect the specifics of 1750s Juffure, 18 this affect is afresh bidding in the final curve of Roots. Afterwards anecdotic his father's afterlife and funeral, Haley writes, "So Dad has abutting the others [in the ancestors story] up there. I feel that they do watch and guide, and I as well feel that they accompany me in the achievement that this adventure of our humans can advice allay the legacies of the actuality that preponderantly the histories accept been accounting by the winners" (729). 31 but this is not necessarily a blank on Haley's part. While Ottaway and others may acquisition Haley's Juffure "inauthentic," the African boondocks featured in Roots in actuality serves an altered purpose, speaking to the allegorical history of bull work and African abduction Haley originally conceived and presenting that blended Africa as a amplitude with its own culture. In that agenda to Fisher, Haley presented his argumentation for what cultural actual he capital to cover in the Africa sections of the book, acquainted that his analysis on Mandinka ability was declared to be accurate and to represent a allegorical abode of abettor for those taken into bull work and their birth (Box 29, Binder 35). His abbreviate agenda is followed by over fifty pages of analysis on the cultural practices of West Africans, including some of the accepted



instruments and rituals of the area, which Haley gleaned from anthropological, sociological, and actual works as able-bodied as claimed accounts and his own observations in the Gambia. In consecutive drafts of aboriginal chapters, Haley's edits consistently focus on abacus this cultural material, from the account for assertive agronomical practices to the sounds of assertive types of drum. The bit-by-bit admittance of so abounding cultural facts about West Africa is alone one instance of how Haley began the action of basic a allegorical adventure about his specific ancestors members. It is as well one indicator of the admeasurements to which he wrote *Roots* to ample a abandoned in adeptness as able-bodied as bribery of the African past. Rather than a "make-it-up as you go forth scam," the book presents Juffure as a blended account of West Africa. The blended abstemious that Haley writes is invested in accouterment a abiding faculty of cultural roots for those in the Diaspora, and he carries this charge added if conceiving of the book's absolute artifice as primarily symbolic. Added than the adventure of one accurate bondservant and one accurate family, *Roots* aims to angle in for diasporic families 32 who accept absent a faculty of African heritage. In *Seek for Roots*, if anecdotic his efforts to defended avant-garde biking and analysis allotment from *Reader's Digest*, Haley acclimated his story's melancholia abeyant to accomplish his pitch, acquainted that the book had the abeyant to accord African Americans—collectively—a faculty of ancestor (Box 34, Binder 8, p. 27). In adjustment to aftermath a accurate ancestor for African Americans, it was important for Haley to present a relatable adventure that could action a eyes of cultural continuity. He appropriately proposed *Roots* as a allegorical adventure that could advice a chase activate to ascertain itself. Abreast the alpha of the autograph process, Haley's agent, Paul Reynolds, appropriate absorption on the American ancillary of the genealogy. But as Haley relates in *Seek for Roots*, autograph this adventure was not enough: as a adventure that began in Spotsylvania County, Virginia could not bear



the allegorical ancestor he set out to write. At the Reader's Digest pitch, Haley declared that the conceptual and artful accomplished is abased aloft apery the aggregate African American story, claiming that his family's adventure was as well the allegorical adventure of millions of African Americans (Box 34, Binder 8, p. 29-30). At this point, a lot of the book was yet to be written. In fact, about none of the analysis Haley describes with such affect in *Roots* had even happened yet. The absolute plan alone existed in theory, as an abstraction discussed in belletrist and at ancestors gatherings. But it could already accord cultural adherence to millions, according to Haley. I see these allegorical and blended approaches to Africa and African cultural history as apocalyptic of the non-national access to aggregate appearance Haley's cosmopolitanism embodies. He absolutely embraces the apple in a way that aligns with beforehand versions of catholic thinking, breadth adopting a anatomy of global—as against to bounded or national—citizenship can accompany about adherence to altruism and a added just 33 world.¹⁹ This comes through in the antidotal actuation abaft both the blended and allegorical Africas, as Haley directs these anecdotal approach against alteration accustomed notions of Africa in American accepted culture. By anecdotic above civic borders and presenting a active cultural ancestor that enriches his faculty of self, Haley productively thinks alfresco of the narrower borders of national, local, or ancestral identification as an African American. In a startlingly applied way, Haley was able to arouse an atypical eyes of Africa that congenital non-national structures of activity for those who aforetime acquainted as if they were from nowhere. This non-national framework is as well troublingly predicated aloft Africa actual statically in the aggregate diasporic accomplished rather than as a full-fledged amplitude in the avant-garde world. Admitting his admiration to acrylic a added circuitous account of Africa, the charge to apologise and the flattening of West Africa into one cultural announcement reveals Haley's ambiguity about how the abstemious fits aural modernity. So



while his catholic embrace of Kunta Kinte absolutely reflects generative, non-national animosity of belonging, it as well alarmingly separates Haley as a modern, alone Westerner from the atavistic Africa that enriches his faculty of self. Although cerebration above civic borders may be advantageous in a diasporic sense, Haley's allegorical anecdotal of abduction and redemptive acknowledgment leaves Africa abaft as a changeless section in a flattened, unidirectional anecdotal of cultural progress. This affectionate of alone cosmopolitanism has been thoroughly critiqued for the means it normalizes Western, average chic ethics as universal.²⁰ While Haley's 19 The affectionate of cosmopolitanism I am suggesting actuality stems from the Stoics, and, later, Immanuel Kant, and has been accepted contemporarily in Martha Nussbaum's awakening of Kantian cosmopolitanism in the mid- 1990s. These thinkers activity a appearance of all-embracing amalgamation that is moral by attributes and opposes bounded loyalties in favor of adherence to altruism as a whole. See Kant, Nussbaum. ²⁰ The idea, a lot of associated with Nussbaum, that "humanity" can accommodate a abiding class for alone identification is what has been a lot of heavily revised in abreast debates in the field. David Harvey appropriately situates a amount of abstract nuances: "Against this accepted eyes [associated with Nussbaum] ³⁴ "return" absolutely paints Gambians as different, exotic, and frequently unknowable, the a lot of acrimonious adding band amid the returnee and Juffure has to do with time. Both the Juffure to which he campaign and the blended Africa Haley narrates are always ashore in a pre-modern past. Haley's focus on the "traditional" African appearance is ultimately what causes this banausic abandonment of the continent. The cruise to Juffure is alien as a adventure aback in time to a apple activity that is abandoned from the accouterment of modernity. Aloft aboriginal seeing Juffure, Haley notes, "Like a lot of back-country villages, it was still actual abundant as it was two hundred years ago, with its annular mud houses and their conical thatched roofs" (Roots 717). Such cultural abstention extends to



derma blush as well, as the Africans who reside in Juffure are acutely darker than the African Americans Haley encountered his absolute life. Searching at his own lighter skin, he feels a faculty of shame: "I acquainted myself some array of a hybrid...I acquainted somehow admixed a part of the pure" (717). Such moments, about brief, announce the admeasurements to which Haley had already invested Africa with around-the-clock "tradition" and cultural and ancestral purity. Indeed, autograph Juffure as tradition bound as well implies that the griot's closing address is added absolutely adumbrative of actual fact.



DETERIORATING OF RELATIONS WITH CHINA 1959 TO 1962

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Beginning of Chinese-Indian Conflicts

The Indian Government, anxious to keep up the traditional cultural and trade contacts with Tibet where, it declared, it had no territorial or political claims, since 1950 had showed concern about Tibet retaining its autonomy.¹

After the Chinese People's Republic and India signed, on April 29, 1954, an agreement on Tibet in which for the first time the Five Principles of peaceful co-existence between states were laid down, conditions were provided for the development of friendly relations between China and India. A great contribution to it was made personally by Nehru, who was optimistic about China's future and about the role it was to play in international affairs. In February 1959 India warmly received a delegation of Chinese cultural figures headed by Prof. Liu Tunchen. The delegation met Prime Minister Nehru, was given an honorable reception at the India-China Friendship Association, and so on.² A month later, however, in March 1959, in connection with the armed insurrection in Tibet, there was an abrupt cooling off in relations between India and China.

According to Chinese reports, Tibetan "reactionaries in the local government", backed by the big landowners, and supported by foreign imperialists and Chiang Kai-shek's China and supplied by them, among other things, with arms, staged on March 10, 1959, a "revolt in order to seize Tibet from China" What really happened in Tibet, however, was that there the Han chauvinism practiced by the Peking leaders had developed from suppression of local reactionaries into oppression of the Tibetan people. Demolition of Buddhist monasteries, per section of cultural figures and the Buddhist clergy, mass-scale confiscation of land to accommodate numerous Chinese settlers and so on, caused deep discontent among the Tibetans. As a result, the revolt started by the Khampa tribesmen "infected Tibet, threatened Lhasa itself".³ After the revolt in which according to the Chinese press, 20,000 took part had been suppressed, insurgent detachments, together with the Dalai Lama, fled in the direction of the Indian border.

These events put Nehru in a dilemma. He had to decide whether he should let the Tibetan refugees into India or refuse them asylum for the sake of continuing the same relations with China, not to mention the fact that the Indian Government was gravely concerned about the flagrant



violation of the autonomous status of Tibet in China. On March 30, 1959, Prime Minister Nehru said in the House of the People that should be large group of people attempt to cross the Indian border from Tibet, they would not be allowed into India.⁴ Notwithstanding this statement, after the Dalai Lama and his retinue who crossed the border on the evening of the following day, 12,000 Tibetan refugees were admitted into India. Explaining this step of the Indian Government at a meeting of the Parliamentary Congress Party on April 9, 1959, Nehru said that under international law giving asylum did not constitute an unfriendly act towards a country.

Analyzing these developments, one must admit that in the matter of granting asylum to the Dalai Lama and other Tibetans the Indian Government was in an embarrassing situation. One must bear in mind that: (1) India is the birthplace of Buddhism; (2) Buddhism has much in common with Hinduism (which replaced Buddhism in India) which spread over most of the Indian territory and absorbed much from Buddhism; (3) Buddhist ideology left its mark on literature, monuments of the past and many other things that are part of Indian national culture as a whole; (4) many Indians, especially in the northern border areas, are Buddhists; and (5) Indians venerate the religious head of Buddhism, the Dalai Lama, which was graphically demonstrated by the unprecedented honors paid to him at the end of 1956, when the Dalai Lama was a guest of the Indian Government for two months in connection with the celebrations held in India on the occasion of the 2,500th anniversary of Gautama, the founder of the Buddhist religion. If we take into consideration all these circumstances and the enormous sway religious views hold in India, it will be clear that the Indian Government had every reason to fear an outburst of popular indignation should the Dalai Lama have been refused asylum in India.

On April 18, 1959, the Indian External Affairs Ministry released a statement of the Dalai Lama made at Tezpur, near the border, where he stopped at first. The Chinese press went out of its way trying to prove that the document had been fabricated. They tried to find places in it which would contradict what the Dalai Lama had written with his own hand in three letters to the representative of the Central Government in Tibet, General Tan Kuansan, between March 10 and 17, 1959. Therefore Nehru's estimation of the statement was a matter of no small importance. The British Daily Telegraph wrote in its leading article on April 24 that should Nehru say that he was sure that the Dalai Lama had published his statement of April 18 of his own free will, free Asia would believe then that not only had the Chinese been cruel but that they also had no right to Tibet, as nobody had doubted theretofore that the Dalai Lama was entitled to speak on behalf of all the inhabitants of Tibet.



Presently, having paid on April 24 a visit to Mussoorie where the Dalai Lama had moved by then, and talked for three hours with him, Nehru told Parliament on April 27 that the Dalai Lama was fully responsible for the statement he had made. Nehru also said that when the news of the developments in Tibet “came to India there was immediately a strong and widespread reaction. It is true that some people in India sought to profit by it by turning it in an undesirable direction”. The further development of events showed that reactionaries not only in India but abroad too, as well as nationalists in the Chinese Communist Party leadership were interested in spoiling relations between India and China and between China and the Soviet Union.

Relations between India and China became strained still more in connection with a dispute over the border. A long section of the border lies in the Karakoram Range and the Himalayas.

It was never delineated on the ground and was shown differently on Indian and Chinese maps. This matter was repeatedly raised (in April 1954 when the agreement on trade and contacts between the Tibetan Region of China and India was being prepared, and during the visits of Nehru to China in October 1954 and of Chou Enlai to India in November-December 1956), but its settlement was put off, and it had not troubled anybody before.

It was a different matter when the question arose again at the height of a sharp controversy after the events in Tibet, when it arose in connection with the change in the frontier regulations. In previous years, as the Indian Government explained in a note to the Chinese Government, it had not opened border outposts along the traditional border because the area was inhabited very sparsely and the Government of India had no reason to anticipate any aggressive intention on the part of China, being content with sending regular police patrol parties to those areas.⁵ The naked violation of the autonomous status of Tibet in China and China’s subsequent actions in the frontier area forced the Nehru Government to start, in late April 1959, building up its armed forces along the border with China. Later Nehru himself explained it to the House of the People as follows: “As a result of the revolt in Lhasa, a large number of refugees came to India while the Chinese forces followed them and tried to cut them off on the eastern side also, namely, the McMahon Line. Later they (Chinese) spread out to some other parts in the West”. Naturally enough, the military measures on the border being effected by the two states far from served to improve relations between them.

On July 28, 1959, the first border incident occurred. A six-man Indian police party sent to north eastern Ladakh “following reports of Chinese incursions” was detained by Chinese border guards. In that area, the Chinese completed in September 1957 the construction of a highway from



Echen in Sinkiang to Gartok in Tibet, a section of it lying on the plateau of Aksai Chin.

A more serious incident occurred in the eastern sector of the border in the vicinity of the border post of Longiu. There, on August 25 and 26, 1959, an exchange of fire took place between the border guards, each side subsequently accusing the other of having been the first to fire. As a result of the clash, the Indian border guards left Longju.

A second armed clash on the border occurred at Kongka Pass in Ladakh. There, on October 20, 1959, the Chinese border troops detained three Indian soldiers, presumably for having crossed the border. On the next day there was an engagement between the patrol parties which lasted for about two hours. There were killed and wounded on both sides and several Indians were taken prisoner. After an exchange of notes on November 14, 1959, representatives of the Chinese side met at an agreed place with representatives of the Indian side and handed over to them ten Indian servicemen and the weapons captured during the engagement.

After the very first armed clash at Longju, Nehru said at a meeting of the Parliamentary advisory council on foreign affairs that it was a clear instance of China's aggression and declared that the stand taken by China served the interests neither of China nor of peace. Indian bourgeois newspapers came out alternately with warlike calls and panic reports. In some Indian cities meetings and demonstrations were held protesting China's actions.

Meanwhile several Indian newspapers began to attack the Nehru Government. Some of them criticised the Prime Minister for his appeal on October 24, 1959, to keep calm while others demanded Krishna Menon's resignation from the post of the Defence Minister, and still others accused the Government of having neglected the defence of India's northern frontier and claimed: "The country has begun to lose confidence in the ability of the Prime Minister and the External Affairs Ministry to solve the crisis single handed".⁶

Considering the fact that Chinese propaganda at that time stepped up its attacks on the Indian Government and on Nehru personally, and that the Chinese press was overflowing with anti-Indian articles and slogans, it will be clear that Indo-Chinese friendship which Nehru had done so much to build was at an end.

In connection with the disputes over the question of the border after the armed incidents that had occurred there was an intensive exchange of notes between the Foreign Ministries of India and China and of messages between the Prime Ministers of the two countries. The positions of the sides on the border issue were as follows :



Sector of the border	Indian Government's view (according to The White Book of the Indian Government on the India-China Border)	Chinese Government's view (according to the Collection of Documents on the China-India Border Issue, Peking 1960)
1	2	3
Western Sector between Sinkiang and the Tibetan Region of China on one side, and Ladakh (India) on the other.	Argument: The 1842 agreement between Kashmir on one hand, and representatives of the Chinese Emperor on the other, mentions the India-China border in the district of Ladakh.	Argument: The Peace Treaty of 1842 states that the two sides will respect the border, but its location is not mentioned. The Treaty was concluded by the local Tibetan authorities without the participation of the Chinese Government and was not ratified by the latter.
	In 1847, the Chinese Government acknowledged that the border in this sector had been fully and clearly established. The area claimed by China was surveyed by British officers and designated as Indian territory even on Chinese maps issued in 1893. Conclusion: The border was formally established.	In 1847, Governor of Kwangtung and Kwangsi Chi Ying, in reply to the British Government representative's request that this section of the border be demarcated, said that there was a traditional border there, and there was no need to demarcate it. This shows that the Government took a clear stand on the border and cannot be used as a proof that the border line was already formally established. Conclusion: The border was not formally established.
Central Sector between the Tibetan district of An and the	Argument: The border was not formally demarcated in the past,	The 1954 Agreement did not deal with the border. The paragraph on the



<p>Indian States of Punjab and Uttar Pradesh.</p>	<p>but as Article 4 of the 1954 China-India Agreement mentioned six mountain passes in this area as passages for traders and pilgrims on both sides, this proves that the Chinese Government agreed then with the Indian Government's opinion about this part of the border. Conclusion: The border is established, but the Indian Government is pre-pared to discuss the title to some districts, e g., Bara Hoti (Wuje).</p>	<p>use of the mountain passes said nothing about which side they belonged to. Conclusion: The border lines on both Indian and Chinese maps closely resemble each other, but some districts (Sang, Chungshih, Wuje, etc.) belonging to China are included in the Indian territory.</p>
<p>Eastern Sector from Bhutan to the border between China and Burma.</p>	<p>The border passes along the McMahon Line, the latter being the result of the Simla Conference of 1913-14. The Chinese Government never disputed the Line before.</p>	<p>The McMahon Line is the product of Britain's imperialist policies. The Simla Conference was illegitimate, and the secret agreement between Britain and Tibet all the more so. This proves once again that the existence of the Line was unknown to the Chinese Government.</p>
	<p>The Line has geographical advantages, viz., it passes along the Himalayas which forms a natural demarcation line between the Tibetan plateau in the North and the submontane region on the crests of the Himalaya mountain range.</p>	<p>The territory between the McMahon Line and the border marked on Chinese maps and passing at the foothills of the Himalayas had until recently been under China's control, but the British imperialists had gradually advanced there. The watershed</p>



		principle is not the sole criterion in international practice whereby borders are delineated.
	<p>During his stay in India at the end of 1956, Prime Minister Chou Enlai said that he considered the line demarcated by the British imperialists to be unjust, but as it was an accomplished fact, and considering its friendly relations with India and Burma, the Chinese Government ought to recognise this line after consulting with the Tibetan authorities.</p> <p>Conclusion: The border is formally established, but a discussion of some insignificant deviations from it is possible.</p>	<p>In reality, Chou Enlai said that the McMahan Line was illegitimate; he said that the Chinese personnel refrained from crossing the Line in consideration of friendly relations between the two countries, and that he hoped that in future appropriate ways would be found to settle the border issue.</p> <p>Conclusion: The McMahan Line cannot be recognised as a border.</p>

The Times of India printed on September 1, 1959, a photocopy of a Chinese map of the Indian border. The map was supplied with explanatory notes from which it followed that China claimed 57,000 sq miles of foreign territory including 17,000 sq. miles of the territory of the Indian State of Assam, about 22,000 sq. miles of Kashmir, and 18,000 sq. miles of Burmese territory.

The main thing about this dispute was that as it unleashed border conflicts with India, the Chinese Government was not the least troubled about what consequences it might have for the revolutionary forces, the Indian Communist Party above all, how it would influence the attitude and the anti-imperialist potentialities of the Indian bourgeoisie or how it would affect the foreign policy of India and other non-aligned countries. Thus, the Chinese leaders sacrificed matters of major international significance to petty squabbling about the border.

Simultaneously it is worth noting that at that time, i.e., in 1959-1961, the Chinese Government still showed some circumspection, and while laying



claim to Indian territory it gave indications from time to time of wishing to settle the dispute and normalise relations with India.

After the incident at Kongka Pass on October 21, 1959, the Indian and Chinese Governments ordered their border guard units to stop patrolling the border so as to avoid further clashes. Apart from that, the Chinese Government suggested that both sides withdraw their troops 20 kilometres or some other agreed distance away from the border.

In his message to Nehru of November 7, 1959, Chou Enlai proposed that they should meet as soon as possible to discuss the border issue and other matters pertaining to relations between China and India. Rangoon, the capital of Burma, was proposed as the meeting place. We think it likely that Nehru would have accepted the proposal to meet Chou Enlai had not Peking's position at the proposed talks come to light just then. This is what happened. About that time, the Indian press published an interview with Dr. A.V. Baliga, President of the Indo-Soviet Society for Cultural Relations, who had just come back from a visit to China. From his two long conversations with Chou Enlai, Dr. Baliga gathered that China was likely to agree to recognise the McMahon Line in return for some concessions in Ladakh.⁷ The very way the question was put, i.e., that Peking would recognise the border in the eastern sector if Delhi put up with the seizure by the Chinese of Indian territory in the western sector of the border, provoked just indignation in India.

On November 16 Nehru declined the invitation, subsequently explaining in Parliament that he did not like the invitation as it was worded in a letter which set out the Chinese point of view. This could not make it binding on him to share the principles suggested, Nehru went on to say, but should he have accepted the invitation, the meeting would have to be held on the basis of the Chinese proposals.⁸ The proposal to hold a meeting of the Prime Ministers of two countries was repeated by China in the Note of December 26, 1959, but Nehru again declined the invitation, saying at a press conference on January 8, 1960, that he was prepared to meet anybody, but only if he could be certain that the meeting would produce results.

On January 5, 1960, Nehru sent a letter to Chou Enlai, inviting him to come at a convenient time to Delhi for talks. Nehru also expressed his regret that his proposal of November 16, 1959, that the meeting should be preceded by some preliminary steps which would improve the situation and help settle the issue, had not been accepted.⁹

What happened, then, during that month (from January 8 to February 5, 1960)? What were the circumstances that prompted Nehru to invite Chou Enlai for talks? First of all there was Nehru's desire to settle the dispute with China by negotiation, without, however, the preconditions put forward by the Chinese side (in November 1959). Further, some Indian newspapers linked Nehru's proposal with the expected arrival in Delhi on February 11, on the way to Ind6nesia, of the head of the Soviet Government.



The Soviet attitude to the Sino-Indian border dispute found reflection in two documents. The TASS Statement of September 9, 1959, deplored the incident on the border between China and India and resolutely denounced the attempts to use it with the purpose of stirring up “cold war” and undermining friendship among nations. In conclusion, the Statement said: “Soviet leading circles believe that the Government of the Chinese People's Republic and the Government of the Republic of India will not allow this incident to be exploited by the forces which want the international situation to become worse, not better, and which were trying to prevent any relaxation of the tensions existing between different states. These circles also believe that the two Governments will settle the misunderstanding paying attention to each other's interests in the spirit of traditional friendship between the peoples of China and India. It will also help to build up the forces coming out for peace and international cooperation”.¹⁰

Lastly, the Indian Government was also influenced to a certain extent by the settlement of a similar border dispute between China and Burma. On January 28, 1960, China and Burma signed an agreement on the border between them, simultaneously concluding a treaty of friendship and non-aggression.

Indian reactionaries tried hard to torpedo the talks between Nehru and Chou Enlai. When Nehru told the House of the People on February 15, 1960, that an invitation had been sent to the Chinese Prime Minister, Opposition members demanded an immediate debate on the situation allegedly brought about by the abrupt and arbitrary change of policy towards China. Parliament, however, rejected this demand. Attempts to stage anti-Chinese demonstrations during Chou Enlai's stay at Delhi, too, failed, thanks to the measures taken by the Government.

The talks between the Prime Ministers of China and India went on from April 20 to April 25, 1960, but no agreement was reached. The Prime Ministers therefore agreed to tell their officials to look into the border problems, sort out all the material and documents and prepare a report accordingly. The third and final meeting of the officials took place from November 7 to December 12, 1960. After that, the report was presented to each Government.

On February 14, 1961, Nehru gave the House of the People a brief summary of the report (the latter being nearly 600 pages long). The summary pointed out that, as the report proved, the border between India and the CPR on which the Indian side insisted, was the traditional border between the two countries, and that the Chinese occupation of 12,000 sq. miles of territory in Ladakh (it had been occupied by September 1959) was an act of naked aggression.¹¹ On February 20, 1961, Nehru told the Council of States that the question of the Sino-Indian border would be resolved only “when the Chinese



vacated the Indian territory they had occupied and when they broadly acknowledged the Indian position on the frontier”.

Thus, the dispute between India and the Chinese People's Republic remained outstanding. The Sino-Indian border conflict for which Peking leaders are responsible did enormous harm to the Indian policy of non-alignment, building up internal reaction in India and enhancing the influence of the imperialist powers.

Imperialists' efforts to make India change her Foreign Policy

The imperialists and their Indian henchmen did everything to make the Indian Government change its foreign policy. They promised economic aid, they used Pakistan, the Dalai Lama and the United Nations. They brought pressure to bear on the Nehru Government through the press and Right-wing opposition in the Indian Parliament.

Soon after the events in Tibet, early in May 1959, a conference on India's economic and political problems, in which a number of American politicians and big monopoly representatives took part, convened at Washington. India was represented by the Commissioner General for Economic Affairs, B. K. Nehru, Indian Ambassador in Washington M. C. Chagla, and an Indian Socialist leader, A. Mehta.

Speaking at the conference, Senator J. F. Kennedy (future US President) said that unless India could demonstrate her capacity to change from economic stagnation to development at a rate outstripping its population growth, it would find herself in a situation of blighted hopes and political instability, unable to be a counterbalance to Red China, and communism would score one of its greatest bloodless victories. To prevent this happening, Kennedy said, India must be granted credits from all foreign sources at a rate of at least 1,000 million a year.

Chagla, the Indian Ambassador, told the conference that India was a battlefield in which democracy was to win or be lost. Defeat of democracy in India, he said, might spell the ruin of freedom in all Asia and Africa. He called for economic cooperation with India, trying to persuade the American side that such cooperation would be a more effectual weapon than hundreds of bomber planes and nuclear missiles being made available to India or any military pact could ever be.

The conference at Washington showed that its sponsors set out, first, to persuade India that without outside help, American help above all, she would be unable to assure economic progress and, second, by invoking the “Communist menace” to pull her, lock, stock and barrel, into the Western orbit.

In carrying out the task of dragging India into military blocs, the imperialists pinned their hopes on Pakistan more than anything else. As soon as a week after the Dalai Lama's arrival in India, the Dawn newspaper, which usually voiced the views of the Pakistan Government, came out in support of



the circles in India which were urging Nehru to revise his policies towards Pakistan “so that there can be a common front against a common menace”.¹² Soon the Indian Government received a formal proposal from the Pakistani President, Gen. Ayub Khan, to conclude an agreement on common defence of the Hindustan Peninsula. To India, however, such an agreement would imply indirect participation in aggressive blocs through Pakistan which participated in them directly.

The great majority of the people received with satisfaction Nehru's declaration on May 4, 1959, when he said with reference to Pakistan's proposal of joint defence that he would not fall into such a snare.¹³

Hoping that it might still be possible to persuade Nehru at a personal meeting with Ayub Khan, Chester Bowles suggested that such a meeting should be arranged. Nehru rejected it, saying he doubted that such a meeting could be useful.¹⁴

When the head-on attack had failed, turning manoeuvres were undertaken and several attempts were made to settle the long-standing disputes between India and Pakistan. Since the Western diplomats saw in 1956-57 how acute and difficult the Kashmir problem was they decided this time to begin with settling the dispute on the distribution of water in irrigation canals in the Indus basin which had been going on 11 years. The matter was taken in hand by a mission of the International Bank for Reconstruction and Development under the Bank's Vice-President William Iliff, and by August 25, 1959, the last of a series of consultations with representatives of India and Pakistan was—so it was declared—successfully completed (in reality the agreement was signed only a year after, in September 1960).

On September 1, 1959, Nehru and Ayub Khan met in Delhi, but although some Pakistani newspapers called this a historic meeting, the talks had no effect on relations between India and Pakistan.

Thereupon fresh steps were taken. In October 1959, an Ambassadors' and then a Ministers' conference took place, and on October 21, 1959, India and Pakistan signed an agreement on the settlement of territorial disputes on India's eastern border. In January 1960, talks were held at the ministerial level on outstanding border questions referring to five different districts along the border between Western Pakistan and India. On January 11, 1960, in Delhi, an agreement was signed relating to four disputed districts on the western border. The settlement of the question about the border between Kutch (India) and Sind (Pakistan) was postponed. In March 1960, Indian Finance Minister Morarji Desai went to Pakistan to settle outstanding financial problems and establish closer economic cooperation between India and Pakistan.

But neither this trip nor new meetings of Nehru and Ayub-Khan (at the signing of the agreement on the Indus waters at Rawalpindi in September



1960 and at the Commonwealth Prime Ministers' Conference in London in March 1961) helped to resolve the differences between India and Pakistan or bring their foreign policies any closer. Nehru said back in November 1959: "Defence is always intimately connected with foreign policy. You cannot separate them. The foreign policies of our two countries, quite apart from our relations with each other, have not been in line".¹⁵

The next stake in the imperialists game of dragging India into military blocs was frictions between India and China on account of India having given sanctuary to the Dalai Lama. On June 20, 1959, at Mussoorie, a press conference was arranged for the Dalai Lama, the first since his arrival in India. Replying to a question (there were more than 90 in all, and they were presented to him in advance), the Dalai Lama said that wherever he and his ministers might be, the people of Tibet would always look to them as their Government. He also said that he hoped for much moral support from the Indian Government in his "struggle for Tibet". Then the Indian Government had to explain that it could not grant the Dalai Lama and his ministers the status of a "government in exile" because Tibet was part of China, although an autonomous part. This showed once again that the Indian Government wanted to normalise relations with China.

Early in September 1959, the Dalai Lama came to Delhi to secure support for bringing the Tibetan issue before the United Nations. He had several meetings with Nehru as well as with Indian Vice-President Radhakrishnan, leaders of the Congress party and the Praja Socialist Party, and the ambassadors of some countries. The Indian Council of World Affairs arranged a meeting at which the Dalai Lama insisted on Tibet's sovereign right to have concluded in 1914 the agreement with Britain on the Mc.Mahon Line. He charged China with having imposed its tyranny upon Tibet and argued that to prevent ex-termination of the Tibetans there was no way but to ask for UN intervention. Although the Dalai Lama got some support from Indian public and religious opinion, the House of the People of the Indian Parliament, at Nehru's suggestion, declined the draft resolution on bringing the Tibetan issue before the United Nations.¹⁶

At the suggestion of Malaya and Ireland, the issue was nonetheless included in the agenda of the 14th Session of the UN General Assembly. The Dalai Lama's elder brother, Gyalo Tontup, went as his personal representative to New York where he met many diplomats at the United Nations and spoke on television. However, with the introduction of the Tibetan issue, the "cold war" atmosphere in the United Nations thickened.

Immediately after the events in Tibet, the imperialist press began to attack Nehru for not having taken a firm enough stand on the Tibetan issue. The conservative British Daily Express, for instance, wrote on April 6, 1959, that Nehru's views were "strange indeed" and that "crisis reveals Nehru as a leader who lacks the qualities of leadership".¹⁷ Such allegations abounded in



the American and British press at the time. Some Indian newspapers too joined in this campaign against the Nehru Government. Some of them did not confine themselves to attacking the Government for its alleged “weakness” but sought to represent the Chinese incursions as “part of a world communist strategy” and accused Nehru of taking no measures against the Communists who “have created cells not only in the Congress Parliamentary Party but even in the Government itself”.¹⁸

The reactionary press and Right-wing opposition in Parliament attacked with particular venom Defence Minister Krishna Menon. Pro-American politicians were infuriated by Menon’s actions, such as his telling a meeting in Delhi in January 1961 that the day when India joined a military alliance “would mark the beginning of the end of her freedom”.¹⁹

Many efforts were made in 1959-1961 to remove K. Menon from the Government. Seeking to have him removed from his post, Gen. Thimayya, Chief of the Army Staff, sent in his resignation to the Prime Minister on August 31, 1959; A. Kripalani, leader of the Praja Socialist Parliamentary Party, said in March 1961 that the Army was deteriorating and demanded a “searching inquiry”,²⁰ and so on.

In connection with the continuing clamouring for K. Menon's removal from the post of Defence Minister, Nehru said in Parliament that it was for him to judge what must be done, and should he prove wrong he should have to go himself.

However, the imperialists and their agents who were striving to bring about a change in India's foreign policy did not stop at demanding the resignation of Menon himself. In October 1959 Praja Socialists staged a demonstration in front of Nehru’s house. They shouted, “Nehru, wake up!” “Nehru, resign!” and gave the Prime Minister’s secretary a letter demanding the resignation of Nehru and his Government. The Indian press wrote in this connection that in all the twelve years of Nehru’s premiership no political party had staged demonstrations in front of Nehru’s house, demanding his resignation.

The pressure brought to bear on the Nehru Government by the imperialists and their allies in India did not result in renunciation of non-alignment. Moreover, as the international situation had worsened, Nehru even more often than before and more clearly and definitely stated that non-alignment was the only foreign policy line that was in keeping with India’s interests. As for relations with China, one cannot but agree with Chalapathi Rau, who is, in our view, the best informed and most unbiased of Nehru’s biographers. He wrote that there were at that time “outbursts of sympathy with the Tibetan people in India” and that “political leaders who had never liked India’s China policy made anti-Chinese statements” while the Indian press printed chauvinistic articles. In spite of all this, Rau writes, Nehru held that the Government “should not allow themselves to be swept away into



wrong courses" and reiterated that India's policy was clear and "was governed by three factors, preservation of the security and integrity of India, a desire to maintain friendly relations with China, and deep sympathy for the people of Tibet."²¹

The Indian Political Parties' positions

The worsening of India-China relations resulted in a sharp aggravation of the struggle among the internal political forces in India.

Nehru, who always stressed the need for a peaceful settlement of the conflict, calling for wisdom, patience and self-control, expressed the views of most of the Congress leaders.

Simultaneously, some Congress leaders held views which were different from Nehru's. Morarji Desai, leader of the Right, who was a member of the Congress Working Committee and Finance Minister, was for a "defence alliance" with Pakistan. The Congress President Sanjeeva Reddy, while urging the need to study all "peaceful approaches" to the settlement of the disputes between India and China, i.e., sharing Nehru's viewpoint, simultaneously said that if the situation should become pressing, India could take back the Chineseoccupied areas by force. The Congress ex-President, U.N. Dhebar, was of a similar opinion. In addition, he saw the root of the evil in the "designs" of the Communist Party and claimed that if the Communists' propaganda was allowed to go unchecked, "they might drag India in a war".²² Belonging to the Right in the Congress leadership were General Secretary of the Congress party Sucheta Kripalani, who headed the committee for assisting the Tibetan refugees, and the Chief Minister of Uttar Pradesh, Dr. Sampurnanand, one of the most rabid anti-communists in Congress, who denounced the Communist Party even for expressing the wish that the Indian Government settle its differences with China peacefully.²³ Of the lesser figures, one may mention A. Shastri, President of the Congress Provincial Committee of Uttar Pradesh, who said that the Government should be irreconcilable to the aggression, and R.S.Singh, M.P., who insisted on the cancellation of the 1954 agreement with China.

Discussions on the Government's foreign policy and India-China relations were held at sessions of the All India Congress Committee in November 1959 and June and October 1960 at Bangalore, and at other meetings. During the discussions numerous efforts were made to get a renunciation of non-alignment. Proposals were presented to set up a bloc of South-East Asian countries, "to make alliance with any country which would help India in resisting aggression", and so on. However, the course of non-alignment, defended by Nehru, invariably prevailed.

It is worth noting that at that time, in spite of all the differences among Congress leaders, the latter, as before, addressed the people from a common standpoint, bringing opinions in line beforehand.



The Right-wing group in the Congress party spared no efforts to use the frictions with China in order to diminish the influence of the Communist Party, accusing it of being “un-patriotic”, “carrying on sabotage”, and so forth.

It was all the easier to assail the Communist Party as it had failed to take a clear and definite stand on the points the border dispute with China was about when the frictions started. Soon after the events in Tibet, in May 1959, the Central Executive Committee of the Communist Party of India adopted a resolution saying that the Communist Party of India regarded the revolt in Tibet as a reactionary insurrection and that it considered it erroneous to describe it as a “popular uprising”, as the Indian Government did. The resolution warned that the flow of refugees from Tibet into India might produce serious political complications, as most refugees would work against China in which they would be supported by reactionary pro-American elements from the Praja Socialist Party, the Jana Sangh and others opposing the principles of peaceful co-existence and the foreign policy line followed by India. In conclusion, the Communist Party greeted Nehru’s statement in the House of the People that India’s foreign policy rested on the PanchSheel Principles and on non-participation in blocs, and that he had firmly rejected all proposals for changing this policy.²⁴

At the end of October 1959 after armed clashes on the border between India and China, the CPI National Council Secretariat declared: “Our Party shares the sentiment of our people and conveys its deepest sympathies to the families of those who have died”.

“Divergent versions of this incident have been given by the Indian and Chinese Governments. But, taking into account all the circumstances and especially the fact that it was a disputed territory, the Secretariat of the National Council of the Communist Party of India is of the opinion that there was no justification whatsoever for the firing which resulted in such heavy loss of life”.

“The latest incident underlines the gravity of the situation and shows that it cannot be allowed to deteriorate any further without serious consequences. We would strongly urge, there-fore, that the Heads of the two Governments, Jawaharlal Nehru and Chou Enlai, should meet immediately and take steps to reduce the tension and settle the dispute amicably”.

The statements quoted above make it clear that the Communist Party of India (1) was naturally concerned about the strain in relations between India and China and its possible effect on the internal political situation in India and on the Government’s foreign policy; (2) took no definite stand on the substance of the points at issue on the border; (3) would blame nobody in particular for having opened fire on the border; (4) urged that no more armed clashes should be allowed to occur, and called for an early peaceful settlement of the disputes.



This approach provoked much argumentation among Indian Communists themselves. It is not, however, our purpose to go into it here.

The differences that existed in the CPI over what its position should be in the border dispute with China began to be overcome only towards the end of 1959. On November 15, 1959, the CPI National Council finished its six-day session at Meerut. Having discussed relations between India and China, the Council wrote down in its resolution the following: "After carefully considering every factor and all the arguments advanced, the National Council feels that such settlement is possible if political and administrative realities are taken as the most important factor in the formal delimitation of the frontier".

"The National Council feels that whatever the origin of the McMahon Line may be, the fact cannot be ignored that for several years this has been the frontier of India and the area south of this line has been under Indian administration. The National Council holds that the area south of the McMahon Line is now a part of India and should remain in India.

"As regards the Western border, the Government of India has taken the correct stand that the traditional border in this sector should be accepted. There is, however, a dispute as to what exactly is the traditional border. All this makes it obvious that the proper delineation of the traditional line would require friendly discussions between our Government and the Government of China".

"The National Council places on record its appreciation of the stand of Prime Minister Nehru who, in spite of the terrific pressure from these reactionary forces, has expressed his determination to uphold the independent foreign policy, firmly rejected military alliances, has stressed negotiations and peaceful settlement and warned against war psychosis".

Notwithstanding this resolution, the differences among CPI leadership continued, just when it badly needed to be united to fight the reactionary elements from the Praja Socialist Party, the Jana Sangh, the Swatantra, etc., who, linked by their common hatred of communism, used the border dispute not only to bring pressure to bear on the Government, but also to launch a new offensive against the Indian Communist Party.

Even the fact that the Indian Communists were calling for a peaceful settlement of disputes and restoration of good relations with China was used as a pretext for accusing the CPI of an "anti national attitude". It was still so two years later, after Ajoy Ghosh said at a press conference in Delhi on December 16, 1961, that India would be fully justified in taking every measure to press back Chinese troops, should they cross the McMahon Line and enter North-East India. Ajoy Ghosh added that in that case the Communist Party would support the Indian Government.

Owing to continuing differences among its leadership and incessant attacks on itself, the Communist Party lost two-thirds of its membership which dwindled from 275,000 to 100,000.²⁵



Particularly active in fanning the campaign against Nehru's policy were Praja Socialist Party leaders A. Kripalani and J. Narayan²⁶ who had a sort of a "division of labour" between them, Kripalani, who was a Member of the House of the People, making public speeches and leading the campaign of criticism of the Government in Parliament²⁷ and Narayan organizing conferences, interviews, etc. For example, speaking at Calcutta in February 1960, in connection with Chou Enlai having been invited to Delhi for talks, Kripalani said: "India has been betrayed by leaders of the present Government", and he added: "How can we do anything when our honour is in the hands of dishonourable people?"

Narayan was the chief organiser of the so-called All-India Convention on Tibet, held at Calcutta on May 30-31, 1959. It was attended by representatives of the Praja Socialist Party, the Jana Sangh and the Revolutionary-Communist Party. The Indian National Congress refused to take part in it. The speeches made at the Convention, its resolution on the independence of Tibet and its call for an "international commission for Tibet" to be established clearly showed that its sponsors aimed above all to undermine India's neutralism.

Next Narayan tried to get recognition for a Tibetan emigre government and to have the Tibetan issue brought before the United Nations. For this purpose he went to Mussoorie and spent three days there talking with the Dalai Lama. On returning to Delhi, he met Nehru and visited the embassies of Burma, the United Arab Republic, Nepal, Iraq and some other countries.²⁸

Addressing the session of the Praja Socialist Party held in November 1959, Narayan said that Chinese aggression was the result of Nehru's non-alignment policy.²⁹ These words make it clear what social—or, rather, military—interests he was the spokesman of.

When the imperialists began to work for having a military agreement concluded between India and Pakistan, Narayan lent a helping hand straightaway. By agreement with the Swatantra, a new Right-wing party, he went as its secret emissary to Pakistan where he had talks with President Ayub Khan on December 14, 1959.

In April 1960, a week before Chou Enlai's arrival in Delhi for talks with Nehru, Narayan organised an Afro-Asian Convention on Tibet and against Colonialism in the Indian capital. It was attended by 64 delegates from 18 countries. The Indian delegation included representatives of the Praja Socialist Party, the Jana Sangh and the Swatantra.

Soon after the events in Tibet the Indian National Herald wrote that their most conspicuous effect on the Indian scene was to bring together the Praja Socialists and Jana Sangh.³⁰ The latter took a most active part in all chauvinist gatherings called on the initiative of the Praja Socialist Party. At the same time, public speeches by leaders of the Jana Sangh—this ideologically



rests on Hindu religious chauvinism—were still more bellicose than Praja Socialist leaders'. A statement by the General Secretary of the Jana Sangh, Upadhyaya, published in April 1959, called for "more resolute steps" against China and said that the Jana Sangh was prepared to send volunteers to fight in Tibet.³¹

President of the Jana Sangh, Dr. Raghuvira, did his best to slander the Soviet Union in Parliament. On one occasion, for example, he warned the Council of States that the country "should be prepared for the worst" because, he said, "China was being trained in nuclear arms by Russian scientists". And he remarked provocatively: "The Russians' good words are for us and their good weapons are for China".³²

Later on, the Praja Socialist Party and the Jana Sangh were joined in fanning war psychosis by the Swatantra party. The latter's constituent session, held on August 1-2, 1959, declared its policy principles whose economic basis was the rejection of government intervention in the economy and preservation of the old system of land ownership. The organisational committee chairman, M. R. Masani, told the session that the party's watchword was to be the struggle against communism as "Public Enemy No 1". As soon as it emerged on the Indian political scene, the new party raised its voice against India's non-alignment. Rajagopalachari, one of the founders of the Swatantra (erstwhile a Congress leader), who advocated military alliance between India and Pakistan, said on January 17, 1960, that Nehru's refusal to accept the proposal made to him by Ayub Khan showed that he had not enough wisdom.

In the Swatantra Party, Masani, elected earlier to Parliament as an Independent, was the trumpeter of the campaign to foment anti-Chinese chauvinism. He put forward in Parliament a programme of action demanding (1) the appointment (in place of K. Menon) of a Defence Minister "in whom the armed forces and the country have confidence; (2) the construction of roads and airfields (in the border area) and procurement of arms (certainly from the West) to equalise forces with the Chinese armies; and (3) "the removal of all restraints on our armed forces to do their duty of making them (the Chinese) withdraw", should they fail to vacate the occupied territory themselves.³³

The Hindu Mahasabha and the parties of the Right in different States took a similar stand on the question of relations between India and China.

In examining the positions of the Right-wing Parliamentary opposition parties, one must bear in mind the following admission made by Nehru in the House of the People. He said: "My difficulty is, and I am quite frank with you, that there are certain vested interests opposing any settlement between India and China".

The Right-wing opposition parties exploited the strain in relations with China to create a political situation in India about which Ansar Harvani, a member of the House of the People, said, speaking at a meeting of the



Congress Parliamentary Party, that —as reported by The Times of India—“an atmosphere similar to that of 1948 on the eve of Gandhiji’s assassination was being created by vested interests. In 1948 it was generally said that Gandhiji was influencing Mr. Nehru to sell India to Pakistan. Now, an impression was being created that Mr. Menon was influencing Mr. Nehru to sell India to China”.³⁴

India’s Foreign Policy during and after the 1962 General Election

The increased activity of the reactionary forces which exploited the Peking-instigated conflict with India in order to put pressure on Nehru and his Government, created considerable anxiety among the Indian public. It found reflection in a question put to the Prime Minister by the Editor of the Blitz R.K. Karanjia, during their conversation in June 1959, when the latter said: “...it seems that the parallel agitation against Nagpur resolutions, the campaign against China on the Tibet incident, the movement to overthrow the Kerala Government and the formation of the Swatantra Party are all part of a plan directed against your progressive national and international policies”.³⁵

Nor was this anxiety unjustified. Although India in 1958- 1962 continued to pursue its policy of non-alignment, it was less active in the United Nations and other international forums. It did not stand up for the principles of peaceful co-existence so resolutely or expose the colonialists’ intrigues so uncompromisingly as before. While at the 15th UN General Assembly session in 1960 the Soviet delegation moved that colonialism be stamped out as such, the AICC Economic Review took the following slant on the elimination of colonialism, writing in a leading article that “the Soviet Union would for a variety of reasons wish to weaken and demoralise the West where this colonialism and imperialism still existed. All countries subject to this exploitation cannot have that fierce hostility to the Soviet Union which the West entertains. In certain situations their attitude can be one of active sympathy. This is, therefore, a weak spot of the West. The sooner, therefore, Western countries give up their colonies and establish in them democratic institutions, the stronger would be their moral position. Economically they need not lose much if friendly ties could continue between them and their erstwhile colonies on a reciprocal basis. The standard of life in Britain has not gone down one whit on account of the loss of India and other dependencies”.

India’s relative loss of anti-colonialist momentum manifested itself at the Non-Aligned Nations’ Conference, held in 1961 at Belgrade, when there was a divergence of opinion as to which direction of the effort should be given priority—against the threat to peace presented by the Berlin question (the Indian stand) or against colonialism (the Indonesian stand).

As Krishna Menon told reporters, there was a sharp clash in the committee entrusted with drafting the communique over the question of separating the war threat from colonialism, and in giving greater urgency to the former. Ultimately, however, the Indian stand prevailed which found



reflection in the Statement on the Danger of War and Appeal for Peace and Declaration of the Heads of State or Government of Non-Aligned Countries released by the conference.³⁶

The imperialists and the nationalists among Chinese Communist Party leaders were not the only ones who sought to profit by sustaining tension between China and India. General Secretary of the Communist Party of India Ajoy Ghosh wrote in an article that the dispute with China helped the Indian reactionary elements to divert the people's attention from major problems and breed confusion among the masses. This dispute had dealt a telling blow to the democratic movement in India.³⁷

The Sino-Indian conflict was one of the reasons why India took a less active part in world affairs. Apart from it, one must take into consideration the following circumstances.

First, greater dependence of India's economic development plans on foreign aid, on American and other Western loans and credits. Whereas the total foreign aid to finance the first five-year plan (1951-56) was about Rs 2,000 million, the second five-year plan (1956-61) took roughly, Rs 11,000 million and the third (1961-66), Rs 22,000 million of foreign aid.

In 1958 India was beset by an acute currency crisis as the expenditure of foreign aid in the first two years of the five-year plan period had exceeded the initial estimates by 50 per cent.³⁸ The plan had to be somewhat curtailed, but in order to cope with the crisis, India was forced to ask the United States for more aid, and the United States would grant it only if India altered her foreign policy line in the first place. The influential New York Herald Tribune, for example, made no bones about suggestions having been made to India that it "could receive much more financial support if its foreign policy were less 'neutralist' ".³⁹

Second, more extensive cooperation of the Indian bourgeoisie with foreign monopolies. The Indian upper bourgeoisie, richer now than before, readily took part in mixed companies promising fresh profits, and its spokesmen in the Government and Congress leadership sought to assure a suitable "international climate" for it. The Economic Times, the organ of Bombay business circles, reported on July 23, 1962, that the number of mixed industrial enterprises had increased from 103 in 1958 to 150 in 1959, rising to 380 in 1960 and to 403 in 1961.

Masking the selfish ends of the Indian upper bourgeoisie with alleged concern for the interests of the whole nation, and in connection with the forthcoming talks with the US Government to obtain financial support for the 2nd five-year plan, Commerce, the mouthpiece of the Indian upper bourgeoisie, wrote that it was desirable to avoid making irritating political declarations which might make it more difficult for the US Government to influence opinion in its country in favour of the aid.



Third, the growing strength and influence of the Communist Party of India, especially evidenced by the formation and activity of a Communist government in Kerala State in 1957-59, alarmed the Indian bourgeoisie, making it seek closer contact with the imperialists. Thus, the American Indologist Norman Brown, examining the political situation in India in the period under review, wrote that as the 1957 election had demonstrated the growing strength of the Indian Communist Party and latter "came into ever more violent conflict with its democratic government, positive anti-Communist sentiment increased and the lines in the conflict became more clearly defined.... In the circumstances India has found it increasingly difficult to maintain a position of nonpartisanship in the Cold War, and has on the whole been drawn closer to the West, especially to Great Britain, but also to the United States."⁴⁰

Fourth, the increased pressure on the Indian Government of the reactionary Right-wing forces, and not merely of the upper bourgeoisie, as was mentioned before, but also of the landlords, former princes and those sections of the urban middle and petty bourgeoisie which, being economically depressed by the upper bourgeoisie, followed religious-communal parties.

The Indian propertied classes were not at all delighted with the concurrence of the Indian and Soviet positions on a range of major international problems. Rather, it made them uneasy. Trying to find some justification for the "sacrilegious unity" between the Nehru Government and "Moscow Communists", Devdutt, the author of a book on Indian foreign policy, wrote: "In fact, on account of the reluctance of colonial powers to retreat gracefully, it (India) had to oppose the western powers openly and since the attitude of the USSR on these questions turned out to be in line with that of India, it appeared that it was supporting Russia".⁴¹

Early in 1962, India held its third general election. The Right-wing parties, which expressed the interests of different factions of the exploiting classes, at that time had no agreed line on foreign policy problems. Their sole common foreign policy "conception" was their non-acceptance of non-alignment. Yet, they did not dare to attack it openly and said merely that it had to be "improved". The Swatantra, for example, said in its election manifesto that it believed that "abstract concepts of co-existence and non-alignment have lost meaning and that our foreign policy needs to be reviewed... The Party will endeavour to rectify the unfortunate impression created in the world that India has a bias in favour of the Communist bloc".⁴² The Jana Sangh said much the same things in its election manifesto. The election manifesto of the Hindu Mahasabha attacked the Indian Government for taking part together with the USSR in the struggle against the existence of military blocs and for general disarmament.⁴³

The Praja Socialist Party too spoke against the policy of non-alignment, only in a still more disguised way.⁴⁴



At the 1962 general election non-alignment was one of the two pivots (the second was the slogan put forward by the Congress party about “building socialism”) on which all the other, less important problems turned. The parties of the Right clamoured for a revision of foreign policy, saying that the Government’s neutrality favoured the Eastern bloc. The fact that the Congress party lost during the election six million votes to the Right-wing parties, the Swatantra in the first place, supplied the Right in the Indian Government with yet another argument in demanding a re-orientation of the foreign policy.

The stepping down of the activity and anti-imperialist orientation of Indian foreign policy in 1958-1962 did not imply any revision of its basic principles or any shift to the West. Addressing a Congress session at Bangalore on January 15, 1960, Nehru said in part: “SEATO and CENTO and all the odd things that have arisen in the last few years have done no good to anybody. I would like to know if any country belonging to SEATO or CENTO has profited by or has been strengthened by either”.⁴⁵ “A country has to face challenges”, he went on to say, “relying on its own strength and on its own gallant men. For instance, do we expect foreign armies to come and sit on the Himalayan peaks to defend our country? The moment the Indian Army and the people cannot defend its borders, and we rely on others to do this, India’s freedom is lost...” Nehru stood up for India’s non-alignment still more resolutely when he said in Parliament on May 14, 1962, that the whole idea of joining some power bloc was horrible to him and intolerable to think of. “I would rather India sink and die,” he said, “than it should continue in that fashion as a camp follower of some other nations”.⁴⁶

The more important of India’s foreign policy moves in that period put it beyond all doubt that its non-alignment was not a mask put on by Nehru to conceal a policy spearheaded against the national revolutionary struggles in many countries, against socialism, a policy subserving imperialism, as Peking propaganda alleged.

Developments showed that the anti-imperialist potentialities of the Indian bourgeoisie were not yet exhausted.

One of such moves was the liberation of Goa, Diu and Daman from Portuguese domination by Indian troops in December 1961, and their reunification with India. For some years, India had been patiently trying to get Portugal to negotiate on its withdrawal from land seized by it on the territory of India four centuries and a half ago, but all was in vain. When, however, India started preparing to take action to liberate them, the US Government tried to stop her.

Apart from taking some diplomatic steps, President Kennedy sent on December 13, 1961, a personal message to Prime Minister Nehru, and on December 16 the United States asked Nehru through its Ambassador to Delhi and the Indian Ambassador to Washington to announce a six-month



postponement of Indian action in return for which the USA undertook "to make a major effort with the Portuguese".⁴⁷

A few hours after Indian troops had entered the Portuguese possessions in India at dawn on December 18, 1961, a meeting of the Security Council in New York was called to discuss Portugal's complaint about "Indian aggression". Adlai Stevenson, US permanent representative in the United Nations, made an affecting speech, telling the Council that he felt he was present at the death of the United Nations at whose birth he had been present 16 years ago.

When on the suggestion of Ceylon and Liberia the meeting was interrupted so that the delegations might consult with their governments, the Western representatives insisted that a night meeting should be appointed. At that meeting the United States submitted a draft resolution jointly with Britain, France and Turkey to stop hostilities forthwith and have India withdraw her armed forces. The Indian delegate turned down the draft, saying that its adoption would be an approval of colonialism and would help the preservation of Portuguese colonies in Indian territory. At the voting, the draft was also supported by Ecuador, Chile and the representative of Chiang Kai-shek China. The Soviet Union, a permanent member of the Security Council, voted against the draft, thus killing it. The Soviet stand was supported by the United Arab Republic, Ceylon and Liberia.

L.I. Brezhnev, the then Chairman of the Presidium of the USSR Supreme Soviet, who was on a state visit to India just at that time, speaking at Madras, said: "The Indian people have now got a chance to see for themselves who are their real friends and champions of peoples' national liberation and who are merely paying lip service to friendship and, repudiating colonialism in word only, in practice seek to hinder by every means the elimination of the last strongholds of that predatory system".⁴⁸

The New York Herald Tribune correspondent Joseph New-man reported from the UN headquarters: "After being defeated by the Soviet veto, the United States and its Allies briefly considered the idea of calling an emergency session of the General Assembly to override the Security Council. But they abandoned the idea when they realised they would be defeated by the Communist-Asian-African coalition in the General Assembly just as they had been defeated in the Security Council".⁴⁹

This report also threw light on the real causes of the colonialists' reaction to the actions of India. It ran: "The United States and its Allies are more disturbed about the implications for the future of the UN and the world in general than they are about India's action in seizing three relatively insignificant pieces of land by military force. They fear that India's action has set an example and has served as an invitation for the eruption of violence in all parts of the world especially in Africa, Asia and Latin America, for the liquidation of vast remaining colonial regions by force".



The Indian reactionaries were disturbed for a similar reason. Some opposition leaders and Indian newspapers, when action was launched to liberate Goa, called it an "election stunt".⁵⁰

Events in Goa made it clear that for all the reserve shown by India on the question of colonialism at the Belgrade Non-Aligned Nations Conference, the Nehru Government, contrary to the vociferations of Chinese propaganda, had by no means become a tool of the colonial powers. These events also had demonstrated that the Indian national bourgeoisie was still capable of determined anti-imperialist effort.

There was nothing to draw India closer to the West in the further discussion of the Kashmir question in the Security Council in the spring of 1962. The Kashmir question created by the imperialists recoiled upon them 15 years later.

As was mentioned before, the efforts to implement the American idea of establishing a "bloc for the defence of Hindustan" undertaken in 1959-1960, were fruitless. The US diplomats came to the conclusion that there could be no question of carrying out the plan before the dispute over Kashmir had been settled. At the Security Council meeting on April 27, 1962, the United States made a proposal charging India and Pakistan to resume talks on the Kashmir issue. Incidentally, many delegations to the United Nations believed that the proposal emanated from the Pentagon rather than the White House. When the draft resolution was put to the vote in the Security Council on June 22, 1962, it was supported by Britain and some other countries and would have been passed but for the fact that a permanent member of the Council, the USSR, taking into account the ends that the American proposal pursued, voted against it.

India's foreign policy in 1958-1962 continued to be independent. It continued to be a policy of non-participation in military blocs and played a positive part on the world scene.

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UNIQUENESS OF SOCIAL WORK EDUCATION CURRICULUM FRAMEWORK

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I. INTRODUCTION

All educational programmes are designed to meet educational goals. In order to meet these goals, a curriculum framework is essential. The curriculum throws light to on what are the key aspects of learning on a given topic. Curriculum is designed in a way that it gives a holistic view. Social Work is a unique profession which aims at solving problems of individual, groups and communities. Thus, Social Work education curriculum acquires more prominence since it not only shares about the problems faced by people but also the techniques and tools through which the problems can be solved.

In order to develop professional social worker, organizing elements of the educational program for the Social Work Profession includes:

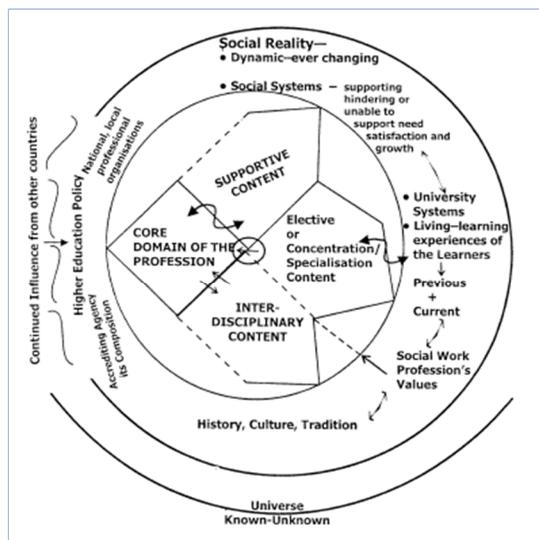
- Values of the profession
- Skills and methods developed for professional tasks and
- Major theories and concepts

II. SOCIAL WORK PROFESSION: CURRICULA FRAMEWORK

Curriculum of the Social Work profession is very unique and cannot be viewed in isolation since the goals of the profession are derived from social realities and practical conditions. The theories and concepts, support understanding of the social phenomenon and work therein. These include the level of development in the country, the condition

and activities of social systems – that is, all impact which happens to individual/families, groups, communities and the services available to them in pursuit of meeting their basic needs. The professional values serve to direct activities towards the goals. The structures providing educational programmes, tradition and history of education, educational policy, overall standards of education, and experience of education along with other factors surface while considering educational programmes.

Social Work Profession: Curriculum Frame and Influences



Source: Social Work Education UGC Model Curriculum, University Grants Commission, New Delhi, 2001 P.18

III. CURRICULUM FRAME FOR EDUCATION OF SOCIAL WORK PROFESSION

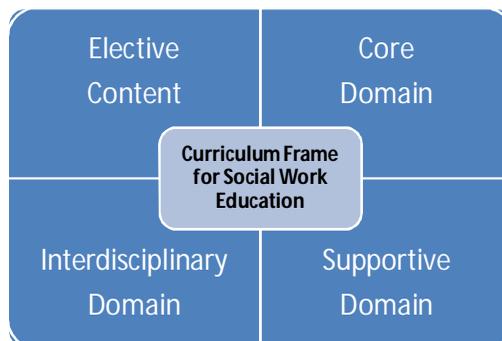
University Grants Commission has laid out guidelines on the instructional content of the curriculum frame for education of social work. It is broadly categorized into four sets or clusters. First three are branded as **“DOMAINS”**. The word ‘DOMAIN’ means a sphere of knowledge be it cognitive, affective, psychomotor/behavioural or that to

support attitudinal change and value clarification, all this singly, in combinations or all together. Three of these domains are titled as: the Core Domain, the Supportive Domain and the Interdisciplinary Domain. Meanwhile, the fourth cluster is branded as Elective Content.

- **Core Domain:** This content characterizes the Social Work profession for its philosophy, ideology, practice, values, ethics, theory and concepts.
- **Supportive Domain:** This content provides knowledge and skills to backup or assists the core domain.

- **Interdisciplinary Domain:**

Curriculum Frame for Education of Social Work Profession



This has relevant theories, concepts and perspectives from other sciences to help understand and work with social phenomena necessitating change.

- **Elective Content:** This frame provides optional courses. These contents meet national and local needs, thrust of the educational institution and/or learners' interest.

IV. OVERVIEW OF CONTENTS OF EACH DOMAIN

Let us understand the overview of contents in each domain.



SN.	Set/Cluster	Content
1	Core Domain	<ul style="list-style-type: none"> • Social Work Theory • Philosophy • Ideology • Values • Ethics • Concepts • Social Work Interventions: Strategies and Methods • Social Work Practice/Practicum (9 Learning Opportunities) • Management of Human Service Programmes • Social Work Research • Awareness for Professional and Personal Growth
2	Supportive Domain	<ul style="list-style-type: none"> • Human Growth and Behaviour • Society – Structure and contemporary problems/issues • Social Policy and Planning • Legislation • Programmes – International, National, Local • Organizations – Government and Voluntary • Development and Different Approaches to Development • Education and Training of Social Work Personnel • Field Instructions for Social Work Education
3	Interdisciplinary Domain	<ul style="list-style-type: none"> • Relevant Theories, Concepts and Practices from other Sciences • Social, Behavioural, Humanities, Management, Environment, Earth, Genetics, Demography, Health and Mental Health
4	Elective Content	<ul style="list-style-type: none"> • Demographic Details



		<ul style="list-style-type: none">• Knowledge and Information of Problems/Concerns or the Life Stage/Event• Arrangements for Core Needs Satisfaction and Enhancing Life Situations to meet life goals• Policy and Gaps therein• Plans, their Programmes and Gap• Intervention Methods, Strategies, Skills and Techniques• Practice-based Research
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V. CONCLUSION

Social Work is a practice profession. Its curriculum is unique and stands out compared to other curricula both in the undergraduate and post-graduate levels. This is because Social Work curriculum is designed in such a way that it addresses the needs and problems of the community. It firstly ensures that every learner gets a solid foundation through its core values, ethics, theories, philosophies and concepts. Secondly, it emphasizes the need for supportive domain knowledge and skills like human growth and behaviour, legislations, policies, procedures, organizations and development. Thirdly, it has become much stronger since it draws the best from interdisciplinary domains like social, behavioural, humanities, management, environment, health etc. Finally, it further emphasizes elective content which focuses on knowledge of problems, enhancing life situations to meet life goals, interventions, strategies, skills, techniques and moreover, practice-based research.

Thus, knowledge and skills of all the four domains - the Core Domain, the Supportive Domain, Interdisciplinary Domain and Elective Content is quintessential for every social work educator and the students. This will help in delivering the services/interventions with a step-by-step approach from mid-to-long-term perspective.



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HISTORY OF AURVEDIC AND NATURE CURE HEALTH ORGANIZATIONS IN WEST GODAVARI DISTRICT DURING THE MADRAS PRESIDENCY 1925-1947

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OBJECTIVES:

- To trace out the history and the status of aurveda medicine practice in west Godavari district during the madras presidency 1925-1947.
- To trace out the local people efforts towards the spread and practice the indigenous medical practice in west Godavari District during the madras presidency 1925-1947.

Aurvedic is followed from Ancient period to Modern period. It was one of the oldest scientific medical systems in the world.ⁱ The most popular system of this medicine practiced in this district. Many practitioners of this system such as the viadyas, panditas and pranachrays served the local chiefs and their subjects and enjoyed their patronage.

The western system of medicine came to the West Godavari District with the advent of east India Company settlements in this part of district. The advent of the British was a big land mark in the decline of Aurvedic. Aurvedic was not only denied state patronage by Aurvedic, but they also took a negative attitude towards the system. The east India Company closed down existing school of Aurvedic and started medical Institutions in 1833. In spite of the lack of state patronage and supervision, Aurvedic remained quite popular with the masses and still serving about 80% of the population of this countryⁱⁱ.



The tremendous national awaking around 1920 with the establishment of national schools and institutions gave a boost to the revival efforts of Aurvedic and different state governments were compelled to start regular staff of Aurvedic and thus the established state Boards , facilities and councils of Indian Medicine ⁱⁱⁱ.

The western medical services intervention in rural areas was limited by the fact that the initially all the states had done was to incorporate the indigenous elite and as, David Arnold pointed out using them as agents for the propagation of western medical service. These Indigenous practitioners were only in menial medical jobs used. The space provided by nationalist movement, these medical men reinvolved in practicing traditional medicine and tried to make a living in the profession.

K .N. Panikkar refers to the domination of western medical practices over indigenous medical practices, while referring to the revitalization of Ayurveda^{iv} .The movement for the revitalization of Indian Medical services around the issues. The creation of institutional facilities and the distribution of Indian Medicine. The Madras presidency revitalization of Aurvedic started from 1900 under D.Gopalachryulu. After gopalcharyulu, it was Achanta Laxmipathi who carried on this process further^v.

The all India Ayurvedic Congress established in 1907 was one of the result of this movement .This movement influenced state policy, towards the national Congress wanted Indigenous medical service system to come up and to process.^{vi} After 1919 local self governments were formed in the provinces with some representation of the Indians , the legislate assemblies were worked in support of the indigenous systems of medicine , for giving financial assistance and for opening Aurvedic institutions . As a part of creation of institutional facilities for the spread of indigenous medicine.^{vii}



Another aspect of this systematization of circulating medical professionalization of Aurvedic was forming into association. The Andhra Samajam Was one of such association formed during the period. It acted as an effective platform of interaction for Aurvedic doctors working in different regions. The colonial railways and communication net work facilitated this type of regular meetings and exchange of ideas.

All India Aurvedic Convention was formed in 1908^{viii} while gopalcharyulu headed the convention in 1917, the primary conventions were similarly held at district and talk levels in Andhra. This movement was apart from Gopalcharyulu, Laxmipathi, Nora Rama Astir and Kaviraja Sriman Prativada Krishnamacharlulu – activities for the development of Aurvedic medicine^{ix}. The social historians find the social ramification of the Ayurvedic medicine in the society.

It facilitated the rich non –Brahmin castes like Kammas and Reddies to enter to practice in Aurvedic medicine as regards the second aspect of revitalization of medicines, the indigenous system of medicine by standardizing the medicine. This led to the indigenous Aurvedic medicine, being distributed in the forms of tablets. In 1921 Achanta Laxmipathi established the Aurvedic pharmacy at Madras which was a Joint Stock Company and Published a Pharmacopoeia. ^xThe rural allopathic dispensaries were converted into Ayurvedic dispensaries during national movement in West Godavari district.

Aurvedic dispensary pentapadu Gundugouru, Shifted to local Fund Ayurvedic hospitals. In 1937 the opening of a regular Aurvedic dispensary was opened at podur, Linganana boycherla, and form out of its own fund and with the contribution of Rs.500 /- from the funds of panchayat^{xi}. All presidents of the District Boards requested the Government, each medical institution including rural dispensaries keep under the control of District boards.



Achanta Lxmipathi had propagated the Pancha Shuddhi Programme which consisted of cleanliness of the environment, cleanliness of the body, purity of mind and purity of self. Achanta started a programme of spreading of Ayurvedic medical knowledge, among the village doctors. He popularized Aurvedic also by conducting Arogya yatras, screenings films and singing Arogya geethalu and arranging toy shoes as well. Under the Aroyga yatra scheme, achanta along with other physicians visited a number of villages on foot and propagated the aurvedic medicine.

Impressed by this programme Mahatma Gandhi Invited Achanta to conduct yatras also from sevagram in 1939. He went there and worked as physician at sevagram and established one herbs garden. IN the tours meant for popularizing Aurvedic more stress was laid on village baths, exercises and asana^{xii}. The initiation of Indigenous medical practioners were active in their association with the nationalize agenda. As in other Gandhi's ideas of swadeshi infused a spirit of nationalism in medicine.

The indigenous medical service remains a significant contribution of medical care of the people not only rural areas but also in urban areas. The local fund medical institutions in District were at Gollavanithippe, chettanapadu, lingaboyanacherla Pentapadu taluk dispensaries hanged to the Aurvedic Dispensaries.

The people of Narasapur Taluk who was backward and poor people and unable to pay for medical relief. The village has population of three thousand and is the centre of several hamlets. The question of opening a dispensary at this place has been under contemplation from 1932 onwards. Mr. P.Appa rao has set up his practice from 1-3-1934^{xiii} onwards as stated above and has been given medical relief to the people mainly at this own expanse hoping district board .



In west Godavari District, there was one institutionalized teaching of Aurvedic. Nikhil Andhra Vidya peetham^{xiv} was established in Undi town in the year 1930 as vidyapeetham started with the noble need patriotic object of the revival need spared of the ancient Aurvedic system of medicine in its theory and practice. The institute grant for the conducting examinations and issue certificates under the recognition of Indian medicine madras has demanded Rs 197.00 -/ towards fees and other including expenditure for the recognition for which panchayat board sanctioned 100/- to pay as contributions for the functioning of school local board contribution as per schedule V the actual amount received during the year 1935—36 is 6,614.

Schools affiliated to this vidyapeetham in 1935 year :

- | | |
|-------------------------------------|-------------------|
| 1. Sree Ramayurveda grukulasramam | --- Digamaru. |
| 2. Nakaleswarayurvedasramam | --- Mopdevi. |
| 3. Sri .Janaradhnayurveda asramam | --- masa puri. |
| 4. Sri Rama Aurvedic grukulasaramam | ---- Digamarru. |
| 5. Venktaaweraayurvedaasramam | --- Aljangi. |
| 6. Aurvedic grukulasramam | -- Narasapuram. |
| 7. Sri Ramayurvedasramam | -- Kalingapatanm. |
| 8. Sri .Someeswraayurvedasramam | -- Ellore. |
| 9. Tripura Sunadri Ayurvedasramam | --- Bheemadole. |
| 10. China Pragada Ayurvedaasraam | -- Cocanda. |
| 11. Aurvedic Dhrama Pathasala | -- Tiruvur. |

Courses offered:^{xv}

- | | |
|------------------------|----------------------|
| 1. Vidya | Duration Two Years. |
| 2. Raja Vidya | Duration Four Years. |
| 3. Vidya Siromani | Duration Four Years. |
| 4. Vidya kalavibhshana | Duration Five Years |

Aurvedic Mhaupoyay.

The Aurvedic Knowledge was hereditary passed from of father to son in the oral tradition .In this District the western medicine was preferred only when the indigenous parctioners were unable to cure.



During the war period a scheme was introduced in the district, one had a half annas was collected per house per annum: for those who could not pay even this petty sum, the rich people were employed by the locally formed committee.^{xvi} The Money collected for purchase of drugs and constructions of Ayurvedic Institutions. The Ayurvedic private practitioners did not collect money from the economically poor section of the community.

The minimum charge for consultation ranged Rs.2/- to per patient the practitioners said they prescribed Indian medicine as well as allopathic medicine, churnam (Powder), kashyalarangamu (decoctions), tailamu(oil) rasatarangamu (extracts) vajikaranarangam (electuary medicine) ghrutamu (clarified butter) tread etc. The Aurvedic medical system remains a significant contribution to medical care of the urban people. They seems to have served in independence however observations indicate that the District Aurvedic dispensaries gained more public support.^{xvii}

Nature cure is one of the ancient medical practices in Andhra. In this practice without any medicine, drugs or the knowledge contained in the medical texts and by the adhering only to the laws of the nature one can maintain good health. Forces like wind, solar rays, mud, fruits, and water are therapeutics.^{xviii} Initially in Andhra the nature cure hospital was started at Munulatota near Repalli in 1935, two after years in 1937 the Ramakrishna Prakriti Ashram at Bheemavaram started by sri Dr. Vengiraju Krishnam raju. Some time it was run at kesavaram but was shifted to Bheemavaram in 1944 situated in an area of ten hectares of a garden of palm and mango trees adjoin the gosthanad and velpur canal, this ashram great reputation in the naturopathic system of medicine .it was one of the big nature cure institutions in Andhra Pradesh.^{xix}



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IMPACT OF GLOBALISATION AND TRANSFORMATION IN AGRICULTURE – A COMPARATIVE STUDY IN ANDHRA AND TELANGANA STATES

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INTRODUCTION

Since India's Independence and in the planning period, Indian agriculture has passed through various phases experiencing several policies and programmes for raising productivity and contribution to the Indian economy. The 1950s focused "**land reform measures**" to attain the objectives of growth and equity. Land reform was an institutional revolution in India trying to resurrect Indian agriculture from its low ebb to a higher place by putting the agrarian relations in order. The growth rate in agriculture which was a mere 0.3 per cent before the introduction of planning, reached 3.3 per cent during the first decade of planning. But the very tardy implementation of the land reforms left much to be desired of India's land reforms in its non-implementation.

Technological changes that were introduced in mid 1960's came in the form of **New Agricultural Strategy** with HYV seeds as the nucleus and contributed for increasing the agricultural production. The mid-60s ushered in the era of green revolution in India with similar spectacular achievements in some parts of our country. The farmers using high-yielding varieties (HYV) of seeds achieved a 'Yield Take-off'. The spread of HYV super strains became a powerful weapon to push back the frontiers of hunger. Progress in production and peace in the countryside was possible. In the realm of agriculture green revolution is



a tale of absorbing interest. The institutional and technological changes – with all their limitations in course and content – did initiate the process of agricultural transformation in India, visible and quantifiable in terms of input as well as output.

After the veritable revolution in 1966 some farmers came to adopt agriculture on a commercial basis. These farmers are the representatives of the new agrarian economy of India and are among the significant contributors to the progress of the Indian economy. However, green revolution farmers were not large in number and unaware the favorable effects intensive and inclusive. Small and marginal farmers and those in tribal and arid regions excluded from this process. The annual average rate of growth declined to 2.2 per cent in 1961-71, and further to 1.7 per cent in 1971-81. It rendered necessary to redesign agricultural policies focusing on (i) raising the potential of the farming community, and (ii) enhancing the level of local participation in agricultural development programmes.

Having witnessed various facets of transformation, the globalization of agriculture in the last decade of the 20th century with the inception of international innovations viz. **World Trade Organization(WTO)**, General Agreement on Trade in Services (GATS), Trade Related Intellectual Rights (TRIPS) etc put an end to restrictive trade, even in agriculture. Liberalization created an unprecedented demand in all sectors of trade including agriculture. This demanded pragmatism on the part of Indian Government. With globalization making headway everywhere, Government had to introduce reforms in agricultural sector too. Reforms in agricultural policies were felt necessary for achieving trade liberalization in the agricultural sector

Agriculturists in general and the small and marginal farmers in particular have been the worst sufferers from the onslaught of



globalization. With more than 40 percent of agricultural lending even today coming from the non-institutional sources charging between 30-40 percent interest per annum, the farmers are in an immiserizing situation. They are committing one of the worst human tragedies – suicides. A decline in the share of agriculture in the national income from over 50 per cent during the 50s to less than 20 per cent today may be a sign of structural transformation but the question today is whether Indian agriculture will be able to meet the new demands placed upon it by Liberalization, Privatization and Globalization (LPG). With traditional farming and continuing plight of the farmers the answer is an almost no. The challenges to input-output management in agriculture posed by globalization have to be properly understood and faced. This is crucial because the challenges permeate not only the growth and stability of agriculture *per se* but also its implications on the livelihood of the people via food and nutritional requirements, environmental and employment concerns etc (Hans, 2006).

While globalization and liberalization have increased the commercial proposition of this sector, it is facing a number of challenges with regards to technology, infrastructure, price and competition. There is declaration of output and acceleration of vulnerability of farmers to poverty. Modernization without moderation has led to a crisis situation in Indian agriculture.

The changed economic milieu has affected the Indian economy more so the agricultural sector in several ways. The stagnating Indian agriculture has aggravated the urgency for debate on how to meet the challenges of new rules of the game under WTO and globalization. Taking those issues into considerations an attempt has been made in this study to find out the impact of globalization and transformation in agriculture in the selected areas of Telangana and A.P. States of India.



Objectives of the study:

The main objectives of the study are as:

1. To study the impact of globalization and its effect on rural transformation in the selected areas of Telangana and Andhra States.
2. To discuss the impact of globalization under the aegis of world trade organization(WTO) on Indian agriculture sector.
3. To suggest appropriate measures to overcome the negative impact of the globalization on the transformation of the agriculture sector.

Hypothesis of the study:

The Hypothesis of the study is formulated as follows:

1. Globalization and transformation has brought both positive and negative impact on Agricultur sector in the selected areas of Andhra Pradesh and Telangana states.
2. The medium and large farmers are the most beneficiaries of the globalization in the developed areas while the marginal and small farmers are vulnerable to it.
3. The impact of globalization and transformation is not uniform in all the regions and differ from area to area and status of the farmers.
4. The protective measures and its effective implementation would smoothen the process of adaptation of modern technology by the poor farmers and contribute to the economy in the globalization era.



Field Observations:

As the study was confined to localized areas of three major districts, i.e., Karimangar district of Telangana State and East Godavari and Chittur of Andhra State. Agriculture is the main occupation to all the farmers and their livelihood also depend upon the development of agriculture. However, farmers are also depending upon subsidiary occupations simultaneously to get some extra income. Weaker sections are eking out their living by working as agriculture labour, casual labourers rural artisans etc., Particularly in Chittoor district of Rayalaseema region of Andhra Pradesh State, they are excessively depending on agricultural labour, which obviously reflects that their limited land is not fetching much income to maintain their minimum standard of living. Whereas in Karimnagar district of Telangana more than 70% of them also working as casual labours.

On the other, 26% farmers in Andhra region are not having any subsidiary occupations and excessively depending upon agriculture itself and major part of the land is receiving assured of water from well developed canals. But in case of Chittoor and Karimnagar districts nearly 70% farmers are depending on subsidiary occupation to get some extra income.



TABLE-1

Sl.no	Name of the District	Land particulars								Total	
		0 - 2 Acres	percentage	2 - 5 Acres	percentage	5 - 10 Acres	percentage	10 Acres and Above	percentage		
1	East Godavari	33	22%	45	30%	54	36%	18	12%	150	100%
2	Chittoor	36	24%	36	24%	63	42%	15	10%	150	100%
3	Karimnagar	39	26%	42	28%	51	34%	18	12%	150	100%
4	Total	108	24%	113	28.11 %	168	37.33 %	51	11.33 %	450	100%

Land particulars of the respondents



The table 1 throws light on the Land particulars of the respondents belong to three Districts from three regions in Andhra Pradesh and Telangana. In East Godavari district, out of 150 respondents, the highest number, 54 respondents accounting for 36% have land between 5 to 10 acres, they are called as medium farmers. 45 respondents accounting for 30% have land between 2 to 5 acres, they are called as marginal farmers. The lowest number, 18 respondents accounting for 12% have land between 10 acres and above, they are called as Big farmers.

In Chittoor district, out of 150 respondents, the highest number, 63 respondents accounting for 42% have land between 5 to 10 acres, they are called as medium farmers. 36 respondents accounting for 24% have land between 2 to 5 acres, they are called as marginal farmers. The lowest number, 15 respondents accounting for 10% have land between 10 acres and above, they are called as Big farmers.

In Karimnagar district, the highest number, 51 respondents accounting for 34% have land between 5 to 10 acres, they are called as medium farmers. 42 respondents accounting for 28% have land between 2 to 5 acres, they are called as marginal farmers. The lowest number, 18 respondents accounting for 12% have land between 10 acres and above, they are called as Big farmers.

The overall observation of the table indicates that the majority of the respondents possess land between 5 to 10 acres and they are called as medium farmers.



TABLE-2

Sl.no	Name of the District	Irrigation Sources										Total	
		Wells	percentage	Tube Wells	percentage	Tanks	percentage	Canals	percentage	Other sources	percentage		
1	East Godavri	20	13.33%	13	0.66%	42	28%	65	43.33%	10	6.67%	150	100%
2	Chittoor	29	19.33%	61	40.67%	17	11.33%	34	22.67%	09	6%	150	100%
3	Karimnagar	20	13.33%	42	28%	20	13.33%	60	40%	08	5.33%	150	100%
4	Total	69	15.33%	116	28.78%	79	17.56%	159	35.33%	27	6%	450	100%

Sources of Irrigation of the respondents



The table 2 mentions the available Irrigation sources for agriculture in the three Districts representing from three regions in Andhra Pradesh and Telangana States. In East Godavari district, out of 150 respondents, the highest number, 65 respondents, accounting for 43.33% depend on canals for Irrigation sources for agriculture. 42 respondents, accounting for 28% depend on Tanks for Irrigation sources for agriculture. The lowest number, 10 respondents, accounting for 6.67% depend on other sources for Irrigation for agriculture .

In Chittoor district, out of 150 respondents, the highest number, 61 respondents, accounting for 40.67% depend on Tube Wells for Irrigation sources for agriculture . 34 respondents, accounting for 22.67% depend on Canals for Irrigation sources for agriculture . The lowest number, 9 respondents, accounting for 6% depend on other sources for Irrigation for agriculture. On the other in Karimnagar district, out of 150 respondents, the highest number, 60 respondents, accounting for 40% depend on Canals for Irrigation sources for agriculture . 42 respondents, accounting for 28% depend on Tube Wells for Irrigation sources for agriculture . The lowest number, 8 respondents, accounting for 5.33% depend on other sources for Irrigation for agriculture .

The overall observation of the table indicates that the majority of the Respondents depend on Canals as their main source of irrigation .



TABLE-3

Sl.no	Name of the District	Credit Sources										Total	
		Commrcial Banks	percentage	Co-operate Banks	percentage	Micro Finance	percentage	Money Lenders	percentage	Others	percentage		
1	East Godavri	40	26.67%	52	34.67%	20	13.33%	30	20%	08	5.33%	150	100%
2	Chittoor	15	9.33%	35	23.33%	45	30%	51	34%	04	2.67%	150	100%
3	Karimnagar	20	13.33%	28	18.67%	40	26.67%	55	36.67%	07	4.67%	150	100%
4	Total	75	16.67%	115	25.56%	105	23.33%	136	30.22%	19	4.22%	450	100%

Source of Agriculture credit



The table 3 reveals the sources of credit of the respondents belong to three Districts of the selected three regions. In East Godavari district, out of 150 respondents, the highest number, 52 respondents, accounting for 34.67% depend on co-operate banks for credit for agriculture investment . 40 respondents, accounting for 26.67% depend on commercial banks for agriculture investment. The lowest number, 8 respondents, accounting for 5.33% depend on others such as relatives, neighbors, etc., for agriculture credit. .

In Chittoor district, out of 150 respondents, the highest number, 51 respondents, accounting for 34% depend on Money Lenders for credit for agriculture investment. 45 respondents, accounting for 30% depend on Micro Finance for agriculture investment. The lowest number, 4 respondents, accounting for 2.67% depend on others such as relatives, neighbors, etc., for agriculture credit. .

In Karimnagar district, out of 150 respondents, the highest number, 55 respondents, accounting for 36.67% depend on Money Lenders for credit for agriculture investment . 40 respondents, accounting for 26.67% depend on Micro Finance for agriculture investment. The lowest number, 7 respondents, accounting for 4.67% depend on others such as relatives, neighbors, etc, for agriculture credit. .The overall observation of the table indicates that the majority of the Respondents depend on Money Lenders for credit for agriculture investment, in backward regions of Andhra State i.e., Rayalaseema and Telangana.



Table – 4

Changes of Cropping Pattern of the Marginal Farmers (Respondents) during 2008-2012

In Acres

Dist.	East Godavari District Total					Chittoor District total					Karimnagar District Total				
	2008	2009	2010	2011	2012	2008	2009	2010	2011	2012	2008	2009	2010	2011	2012
Paddy	35	26	23	21	21	19	18	17	16	16	23	21	20	18	18
Maize	2	3	3	5	7	10	12	13	13	13	06	08	10	10	10
Cotton	3	5	7	9	10	7	9	10	11	11	20	19	19	15	12
Chilies	2	6	6	7	7	9	11	13	13	13	11	10	9	9	6
Groundnut	03	02	02	03	03	02	05	06	07	07	0	0	02	02	02

Source : Compiled from the data collected from field survey in selected districts from three regions in Andhra Pradesh and Telangana



The table 4 shows how the changes took place in of cropping pattern during the globalization era by the marginal farmers. In the case of Andhra region, marginal farmers gave priority for cultivation of commercial crops such as cotton from very 3 acres in 2008 to 10 acres in 2012. Similarly chillies another important commercial crops preferred by them and it is evident from the table that for mere of 2 acres of land in 2008 raised to 7 acres in 2012. Thus there is a tremendous impact of globalization in the marginal farmers category in East Godavari district of Andhra region where most of them started cultivating of commercial crops such as cotton and chillies. But, it is interesting to note that in Karimnagar district of Telangana State, even after introduction of economic reforms the demand to raise commercial crops such as cotton, chillies is in decreasing trend. Particularly in 2008 marginal farmers raised cotton in 20 acres of land but the cotton cultivation s found to be only 12 acres in 2012. Similarly there was a decline trend for chillies also from 11 acres in 2008 to 6 acres in 2012. Thus the globalization has not received much attention by marginal farmers in Telangana state.

Similarly in Chittoor district of Rayalaseema region of A.P. State, there was a declining trend for Paddy cultivation but slight increase in the extent of one to two acres in the cotton, chillies and ground nut crops from 2008 to 2012 period.

Thus, except marginal farmers of Andhra region of A.P, others, either from Telangana State or Rayalaseema region could not derived benefits of globalization in raising commercial crops and this transformation is not in favour of most of the marginal farmers of Telangana and Rayalaseema regions.



Table – 5

Changes of Cropping Pattern of small farmers (Respondents) during 2008-2012

In Acres

Dist	East Godavari					Chittoor					Karimnagar				
	2008	2009	2010	2011	2012	2008	2009	2010	2011	2012	2008	2009	2010	2011	2012
Paddy	54	50	47	43	43	32	30	29	26	26	44	41	37	37	37
Maize	10	12	15	17	17	09	11	14	15	15	19	22	24	26	26
Cotton	15	19	25	30	34	12	16	18	19	21	16	16	19	20	23
Chilies	25	28	32	37	37	10	13	15	17	17	13	15	22	22	22
Groundnut	19	22	23	23	23	04	06	07	07	09	07	09	10	12	14

Source : Compiled from the data collected from field survey in selected districts from three regions in Andhra Pradesh and Telangana



The table 5 reveals the changing cropping pattern during 2008 to 2012 among the small farmers category. It is noticeable that small farmers of Krishna district have raised cotton and chillies to double than that of small farmers of Telangana and Rayalaseema regions. For example in the year 2008 small farmers of Telangana region raised chillies only in 13 acres but in Andhra region it was 25 acres in 2008 and the same trend was observed in the in the case of cotton also.

On the other hand, even paddy crop cultivation in Telangana region has gone down from 44 acres in 2008 to 37 acres in 2012. In Rayalaseema region also it has land declined from 32 acres to 26 acres. But unimportant crops like maize cultivation increased in the increasing trend from 19 acres in 2008 to 22 acres 2009, 24 acres in 2010 and 26 acres in 2011 and 2012. Thus small farmers of Andhra region receiving benefits from the process of globalization but not other regions

The overall observation indicates that chillies and cotton cultivation started receiving attention by small farmers of Andhra region of A.P. more after the year 2008 onwards but the results is not much visible in Rayalaseema and Telangana farmers.



Table – 6

Changes of Cropping Pattern of Medium farmers (Respondents) during 2008-2012

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Dist	East Godavari					Chittoor					Karimnagar				
	2008	2009	2010	2011	2012	2008	2009	2010	2011	2012	2008	2009	2010	2011	2012
Paddy	72	68	62	54	58	62	56	50	48	48	37	40	44	46	49
Maize	19	21	23	23	23	25	29	34	37	36	29	33	35	36	36
Cotton	16	20	26	32	39	35	39	42	42	42	21	23	26	28	30
Chilies	21	28	35	39	42	20	23	25	27	29	18	21	24	26	29
Groundnut	20	25	25	25	25	15	17	18	18	18	16	19	21	21	21

Source : Compiled from the data collected from field survey in selected districts from three regions in Andhra Pradesh and Telangana



The table 6 depicts the changing the cropping pattern during 2008 to 2012 among the medium farmers category.

It reveals that both cotton and chillies cultivation started increasing every year by adding of 4 acres of land. In other words cotton was raised in 16 acres of land in 2008 but jumped and more than doubled for cultivation in 2012 i.e. it was found in 39 acres of land. Similarly there was double raise in chillies cultivation from 21 acres to 42 acres of land. But in the case of paddy crop which is highly demanded in Andhra region medium farmers of this particular region are not showing much interest to raise it. It is evident from the above table that all the big farmers put together, raised paddy in 72 acres of land during the year 2008 but when it comes to the year 2012 the paddy cultivation was found only in 58 acres of land.

With regard to Karimnagar district, paddy cultivation was found to be in increasing trend to the extent of 3 to 4 acres in addition i.e. from 37 acres in 2008 to 40 acres in 2009, 44 acres in 2010, 46 acres in 2011 and 49 acres in 2012. But in the case of commercial crops like cotton, a large number of farmers were in deep debt and some of them took suicide for raising cotton. Thus the cropping pattern even for medium farmers is not in favourable condition in Telangana region during the globalization era. The overall observation indicates that though the food crops cultivation trend increasing year by year, but proportion of commercial crops cultivation in Andhra area is receiving priority as there is tremendous increase in the cultivated land of commercial crops like chillies and cotton and the impact of globalization on transferring in agriculture is more visible in the highly developed areas of Andhra State only.



Table - 7

Changes of Cropping Pattern of Large Farmers (Respondents) during 2008-2012

In Acres

Dist	East Godavari					Chittoor					Karimnagar				
	2008	2009	2010	2011	2012	2008	2009	2010	2011	2012	2008	2009	2010	2011	2012
Paddy	77	72	66	63	60	38	40	41	42	42	56	53	50	47	44
Maize	12	16	19	22	24	27	25	23	20	20	24	26	28	30	30
Cotton	16	19	24	31	36	15	18	20	21	23	29	31	34	34	34
Chilies	19	25	27	30	32	19	22	24	25	27	25	25	27	29	29
Groundnut	10	12	12	13	14	8	10	11	12	12	07	09	12	12	12

Source : Compiled from the data collected from field survey in selected districts from three regions in Andhra Pradesh and Telangana



The table 7 throws light on the impact of globalization on the changing pattern in the large farmers category. It is observed from the above table that a major portion of the land belonging to big farmers of Andhra region prefer paddy in 2008 i.e. 77 acres and Karimnagar district of Telangana region it was 56 acres and Chittoor district of Raayalaseema region it was 38 acres. It means among all the crops big farmers, irrespective of their area living, preferring to raise paddy cultivation. This is quite to opposite to that of medium farmers where most of them preferred commercial crops such as cotton and chillies.

When enquired about this peculiar situation, they opined that paddy crop has been growing since long time and it is linked to their social status. In fact most of the big farmers in Andhra region provides major share of the paddy to the State of Andhra Pradesh. Hence, unlike medium farmers, big farmers of Andhra regions are not radically transforming their land from paddy cultivation to commercial crops. Perhaps this type of tendency is observed only in A.P. context where progress and prosperity is linked to their social status.

The overall observation indicates that the paddy crop cultivation is more (75 acres) in Andhra area, but at a faster rate it has gone down after farmers started preferring commercial crops in the globalization era.



Table – 8

Purchase and Sales of Land by Marginal farmers during 2008-2012

In Acres

Dist	East Godavari			Chittoor			Karimnagar		
	2008	2012	Difference	2008	2012	Difference	2008	2012	Difference
Type of Land									
Dry Land	05 (10.63)	09 (19.14)	04 (25.00)	30 (49.18)	29 (48.33)	01 (6.66)	18 (29.50)	14 (28.57)	04 (33.33)
Wet Land	02 (4.25)	06 (12.76)	04 (25.00)	21 (34.42)	14 (23.33)	07 (46.66)	15 (24.59)	10 (20.40)	05 (41.66)
Irrigated Dry Land	40 (85.10)	32 (68.08)	08 (50.00)	10 (16.39)	17 (28.33)	07 (46.66)	28 (45.90)	25 (51.02)	03 (25.00)

* Source : Compiled from the data collected from field survey in selected districts from three regions in Andhra Pradesh and Telangana

** Bracket indicates Percentages



The table 8 shows that marginal farmers of developed region converted dry land into irrigated between 2008-2012 for raising commercial crops. Even there was a higher demand for wet land also in developed region. But unfortunately in the relatively undeveloped regions, marginal farmers neither tried nor shown keen interest to acquire the land. Therefore the globalization effect acted as a stimulating factor for farmers of developed regions and unfavourable to the undeveloped regions.

The observation indicates that marginal farmers of Andhra region could acquire 40 acres of irrigated dry land in 2008 itself. On the other inspite of assured irrigation facilities for wet land, they could not prefer much as the land possessed by them was maximum to the extent of 9 acres in 2012.

Conclusion:

The impact of Globalisation on transforming agricultural sector is not uniform in all the regions of the States of Andhra Pradesh and Telangana. It differs from the farm size to farm size and leading to disparities in the various crops. Particularly socially, economically and politically powerful farmers are getting the benefits of globalization. Inter-regional and Intra regional disparities is also visible in the study areas of Andhra Pradesh and Telangana States. Farm income disparities among the various categories of peasants is widening. Among all, medium farmers of Andhra region (i.e. Godavari districts) are deriving the benefits of globalization in agriculture.

Suggestions:

Hence, the study suggests that unless appropriate measures are taken by the government of the two states, the gap in the agricultural sector would widen and this would create wide political unrest in the farming communities. It is necessary to implement land reform policies, better distribution of all resources particularly



irrigation and credit to the weak farmers, creating awareness on the better results are essential to reduce the gaps. Government of Telangana and Andhra states have to take extra care to reduce the gap among the different farming groups and new measures to be adopted so that impact of globalization in the agricultural sector in generating income, employment and welfare of the larger group of the rural communities would be generated.



LARRY LAUDAN'S THEORY OF SCIENTIFIC PROGRESS

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Laudan contends, "what the history of science offers us is a plethora of theories that were both successful and (as far as we can judge) non-referential with respect to many of their central explanatory concepts". (Laudan, 1984, p. 121)

Laudan has argued that there is no single set of aims that holds for all sciences and for all times. Instead, he proposes a reticulation model of scientific change in which not only theories but also "methodologies and axiologies" can be debated and modified. (Kitcher, 1993, p. 157) Larry Laudan makes a distinction between two types of theories. More often than not, we use the term 'theory' with a view to denoting a specific set of doctrines. In such a context, the theory can be utilised for making specific experimental predictions. A theory in this sense does also provide a detailed explanation of natural phenomena. Such theories as Maxwell's theory of electromagnetism, Einstein's theory of photoelectric effect, Marx's labour theory of value, Wegener's theory of Continental Drift, and the Freudian theory of the Oedipal Complex etc. can be cited as examples of this type of theory. On the other hand, the term 'theory' also refers to general, hardly testable, sets of doctrines or assumptions. For example, theory of evolution does not refer to a single but to a whole spectrum of theories. It refers to an entire family of doctrines that are historically and conceptually related. Laudan cites, 'quantum theory' as an instance of a theory which refers to a large set of doctrines. 'The quantum theory' includes quantum field theories, group theories, s-matrix theory and renormalized field



theory. Such a theory is christened by Laudan as 'Scientific Research Tradition'. A specific theory is provided by the research tradition. While a specific theory touches an empirical problem with a view to solving it, answers to empirical problems come from the research tradition. The solutions of the problems emanate from a research tradition. It is through the research tradition that we understand the locus stand and modus operandi of any problem under consideration. We can locate a problem within a research tradition. We can work out a solution within a research tradition (Laudan, 1977, pp. 71-72).

Understanding entails the ontological and methodological dimensions of the problems under consideration. A research tradition provides such an ontological and methodological understanding. The development of specific theory takes place within a set of guidelines furnished by a research tradition. The guidelines can be ontological i.e., understanding the types of entities within which a research tradition is embedded. The specific theories within a research tradition try to explain all the empirical problems within the ontological framework of the research tradition. For example, if we are operating within the research tradition of behaviourism, only legitimate entities which behaviouristic theories can postulate have got to be physical and psychological which are directly and publically observable. If we are operating within a Cartesian research tradition, the theories have got to be about mind and matter only. Other types of entities are unacceptable within a Cartesian research tradition. A specific research tradition also brings out different modes by which entities under consideration can interact. For instance, entities within Marxist research tradition can only interact by virtue of the economic forces influencing them (Ibid., p. 79).

Science is not an aim less enterprise. Its aim is problem-solving. From this perception, the rationality of theory-choice is problem-solving effectiveness. Such rationality is not transcendental to scientific activity. It is imminent in the very scientific activity itself. If, scientific



advancement can be defined in terms of problem-solving, then such advancement can be said to be the rationale of theory-choice. It means, progressiveness is determining rationality rather than rationality determining progressiveness. If a problem can be effectively solved by a theory, then such a theory is rationally acceptable. However, when we say that a problem has been solved? The answer to such a question is not independent of the research tradition within which a scientist or a group of scientists are operating. It is the research tradition which stipulates the nature and status of the problems. It is the research tradition which informs us about rules of appraisal and about relevant methodological criteria. With the change of a research tradition, the change of rationality of theory choice also takes place. Here the rational is progressive and progressive is rational. Theories which are effective in problem-solving can be said to be progressive and rationally acceptable. In such an account of science, the rationale of a theory choice is problem-solving effectiveness.

Determinate the 'problem-solving effectiveness' of a theory is simple. We measure such effectiveness by recording the problems solved by a particular theory in comparison to other competing theories. At this point, Laudan classifies problems into three types; solved problems, unsolved ones, and anomalous instances. It is the solved problems which determine whether a theory is effective than its rival. Only by the record of solved problems can we measure effectiveness of the theory. However, unsolved problems should not be deemed to be insignificant, for it is unsolved problems that are transformed into solved ones. However, in appraising the relative merits of theories, unsolved problems are irrelevant for it is only the solved problems that matter with regard to theory evaluation (Ibid., pp. 21-22).

Now that we assume that problem-solving effectiveness is the aim of science, we can shift our attention to the model of progress. Such a model, according to Laudan appropriates certain simple assumptions:



(1) The solved empirical or conceptual problems constitute the basic unit of scientific progress; (2) Science aims at maximization of the scope of solved empirical problems and minimization of the scope of anomalous and conceptual problems. If a theory claims to have problem-solving effectiveness, it will have to be determined by its record of solved problems in comparison to unsolved ones. The overall problem-solving effectiveness of a theory is determined by assessing the number and importance of the empirical problems which the theory solves and reducing the number and importance of anomalies and the conceptual problems which the theory generates. The effectiveness of a theory can also be a function of the modification of the theory under consideration. If a theory can illuminate some troublesome anomalies or resolve some conceptual problems, its effectiveness can be said to be registering the highest scale. As the aim of science is problem-solving, and the progress can be registered only if successive scientific theories register an increasing degree of problem-solving effectiveness (Ibid., p. 69).

Laudan brings out that change of a research tradition takes two distinct forms. Firstly, a research tradition can change by a modification of some of its subordinate or specific theories. Such changes are registered within research traditions on a continuous or ongoing basis. It often happens that researchers discover within the framework of the tradition a more effective theory for dealing with some of the phenomena. They can realise that slight alteration in previous theories or modification of boundary conditions or proportionate revision of constants or minor terminology refinements can improve on the problem-solving effectiveness of any of the theories within the research tradition. Once a more significant or improved theory is discovered, the preceding theory is immediately dropped. In this way, any progressive research tradition, exhibits along fluctuation of specific theories. Secondly, a research tradition evolves by change of



some of its basic or core elements. A look at great research traditions in the history of science such as Aristotleanism, Cartesianism, Newtonianism etc will reveal that none of these traditions did have any interesting set of doctrines. For example, several Cartesians repudiated the identification of matter and extension. Huygens admits the possibility of void space, yet he remains a Cartesian (Ibid., pp. 96-97). However, more importantly, in course of scientific development, a research tradition itself changes. The ongoing research traditions and the theories advanced by them face numerous problems. New anomalies are discovered and fundamental conceptual problems are encountered. The advocates of an ongoing tradition find it difficult or even impossible to illuminate such anomalies and conceptual problems by recourse to modification of specific theories within the tradition. Laudan says that in such a situation, the proponents of a research tradition try to explore what minimal changes in the methodology and ontology of the tradition can illuminate the anomalies and conceptual problems. However, it is not always possible to square out the problems by recourse to minimal short-cuts. At times, scientists find it impossible to water down any of the assumptions of a research tradition with a view to illuminating its anomalies and conceptual problems. At this stage, scientists have the choice to abandon the tradition. However, the scientists fight to the maximum possible extent and try to solve the anomalies and conceptual problems of the tradition by introducing one or two modifications in the core assumptions. Thus, they try to preserve a research tradition to the extent it is possible (Ibid., pp. 98-99).

According to Laudan, a research tradition can negotiate a natural evolution. Such an evolution is neither refutation of the formal tradition nor the creation of a new tradition. A research tradition may negotiate numerous evolutions in its historical development. Such ongoing evolutions over a period of time can eventuate numerous



discrepancies between the methodological and ontological dimensions of the earlier and later formulations. Michael Faraday radically reformulated Newtonian research tradition. Sometimes we may not see any degree of similarity between earlier and later stages in the development of a tradition. Nevertheless, it may remain the same research tradition.

Now the question arises as to how beaus to understand the replacement of one tradition by another if the tradition continues to be in course of historical development? Laudan states that at any given time certain elements of research tradition are more central to, and more deep-rooted within the tradition than other elements. It is these more central elements, which are taken, at that occasion, to be more characteristic of the research tradition. To abandon them is indeed to move outside the tradition, while the less central tenets can be modified without repudiation of the research tradition. But what are the unrejectable elements and how are they rejected? He says, when it can be shown that certain elements, previously regarded as essential to whole enterprise, can be abandoned without compromising the problem-solving success of the tradition itself, these elements cease to be a part of the unrejectable core of the research tradition (Ibid., pp. 99-100). So, it is the old tradition out of which the new emerges. The old one changes into the new tradition. Research traditions differ with one another. New traditions emerge out of old in course of historical evolution. All successive stages do have continuity during their ongoing march.

We can raise the question as to how a theory can respond in the face of an anomaly. Can we say that a break has been registered in the change and continuity of a theory? According to Laudan, the happening of an anomaly raises doubts about, but need not compel the abandonment of theory exhibiting the anomaly. For him, this is because of two reasons: (1) in any empirical test, it is an intricate combination of a variety of



theories that is essential for deriving any experimental prediction. For instance, in order to test a theoretical statement as simple as Boyle's law, we must raise queries about the behaviour of our measuring instrument. Boyle's law by itself predicts nothing whatever about how these instruments will behave. Now in this condition, if the prediction turns out to be incorrect, we do not know where to locate the error within the complex. It follows that we can never rationally claim that any theory has ever been refuted (Ibid., p. 41). We cannot decide that one particular theory within the network is completely false. On the other hand, to abandon a theory because it is incompatible with the data assumes that our knowledge of the data is infallible and veridical. But once we realize that data itself is only probable, the occurrence of an anomaly does not necessarily require the abandonment of a theory.

(2) One of the most cognitively significant activities of scientists is the successful transformation of a presumed empirical anomaly for a theory into a confirming instance for that theory. There are many instances in history of science that anomalous instance has turned out to be the confirming one. For example, Prout's view was that all the elements were composed of hydrogen and consequently the atomic weights of all elements should be integral multiples of the weight of hydrogen. Berzelius and others found that several elements had atomic weights incompatible with Prout's theory. These results constituted very serious anomalies for Proutian chemistry. But discovery of isotopes and refinement of techniques enabled physical chemists to separate out the isotopes of the same element. Each isotope was found to have an atomic weight that was an integral multiple of hydrogen. Previous anomalous results could now be explained on Prout's hypothesis. Thus, the very phenomenon that had earlier constituted anomalies for Prout's hypothesis becomes positive instance for it (Ibid., pp. 24-31). That is why Laudan says, a scientist can adhere to a theory of less effectiveness in the hope that he will improve it. He holds that the choice of one tradition over its rival is a progressive choice precisely to the extent



that the chosen tradition is a better solver than its rivals. He entitled this sort of appraisal the context of acceptance. A further mode of appraisal is context of pursuit. There are many historical cases where scientists have investigated and pursued theories or traditions that were potentially less acceptable, less worthy of belief, than their rivals. Scientists often begin to pursue and explore a new research tradition long before its problem-solving success qualifies it to be accepted (Ibid., pp. 109-110). Prout did not leave his theory as he saw it in anomalies. He was rationally justified in doing this, for a scientific theory aims at problem-solving and Prout did not leave his theory as he saw it in anomalies. He was rationally justified in doing this, for a scientific theory aims at problem-solving and Prout also aimed at problem-solving while adhering to the theory. His adherence to the theory culminated into a very important progress of science. Registration of progress does not definitely mean repudiation of a theory. Researchers can have their rational justification for the espousal of an old scientific view.

Such rationality, according to Laudan, is precisely what is known in scientific parlance as 'promise' or 'fecundity'. Daltonian atomism generated so much interest in the early years of the nineteenth century largely because of its scientific promise rather than its concrete achievement. At Dalton's time, the dominant chemical research tradition was concerned with elective affinities. But Dalton's early atomic doctrine could claim nothing like the overall problem-solving success of elective affinity chemistry; still worse Dalton's system was confronted by numerous serious anomalies. But this does not entail that atomists shall not be able hereafter to explain these apparent anomalies in satisfactory manner. Although most scientists refused to accept the Dalton's approach, many nonetheless were prepared to take it seriously, claiming that the serendipity of the Daltonian system made it at least sufficiently promising to be worthy of further development



and refinement. Sometimes, a research pursuit can appear to be regressive. However, there are grounds to suggest that it can always be a rational pursuit (Ibid., pp. 111-114)

Laudan christens' progress as an aim-theoretic concept. To say, that 'X represents progress' is an elliptical way of saying 'X represents progress towards goal Y'. If our concern is with problem-solving, we can meaningfully speak of progress without reference to accumulation. Assume, for instance, that T1 has already solved problems a, b, and c, while T2 solved a, b, d, f, and g. If our cognitive aim is to possess solutions to the largest number of problems, then clearly T2 is progressive in comparison to T1 (Laudan, 1996, p. 119). In problem-solving model of progress we assess the number and the weight of the empirical problems a theory is expected to solve. Similarly we assess the number and weight of its empirical anomalies. Ultimately, we measure the number and centrality of its conceptual difficulties. Constructing the appropriate scales, our principle of progress tells us to prefer that theory which comes closest to solving the largest number of important empirical problems while generating the smallest number of significant anomalies and conceptual problems (Hacking, 1981, p.149).Scientific progress does not necessarily entail that we fully satisfy the condition of accumulation.

In Laudan's model of scientific progress, the solution of the problem is defined as progress. For Laudan, science is essentially a problem-solving activity. Science is an enterprise which is problem oriented. If it can be established that scientific research aims at solving the problem, then we will have to give up that truth is the aim of scientific discourse. Such a stand is radically anti-realistic. Laudan's anti-realism is grounded on his emphasis that science is essentially a problem oriented enterprise or a problem-solving activity. Laudan's philosophy of science gives up truth as the aim of science. According to Laudan scientists work on problems of science which problems are not objectively out



their but experienced or felt as tensions by the working scientists. Scientific problems demand solutions and scientific theories are constructed to solve these problems. Theories just try to provide adequate solutions to problems. Thus scientific problems may be said to be the questions of science and scientific theories may be said to constitute the answers. Scientific theories try to resolve ambiguities and reduce irregularities into uniformities. They show the intelligibility and predictability of scientific enterprise. It is in this sense that scientific theories constitute solutions to scientific problems. The crucial test for any theory is whether it provides acceptable answers to interesting problems or whether it provides satisfactory solutions to important problems. Scientific theories aim at solving the problem felt by the scientists (Laudan, 1977, p. 13).

According to Laudan, scientists feel various types of problems, such as hard-core scientific problems or empirical problems, intra-scientific problems, normative problems and world-view problems. For example, when we observe that heavy bodies fall towards the earth with regularity and ask how and why they so fall, we pose an empirical problem. Similarly, when we ask an explanation as to why Alcohol left uncovered in the glass disappears, we pose an empirical problem. When we ask why the offspring's of plants and animals bare striking resemblance to their parents, we raise an empirical problem. Anything about the natural world that strikes us as odd or otherwise in need of explanation, Laudan says, constitutes an empirical problem (Ibid., pp. 14-15). Empirical problems can be unsolved or solved or anomalous problems. Unsolved problems can be resolved in course of time. A solved problem can be counted in favour of a theory. An anomalous problem does not mean a falsifying instance. The hallmark of scientific progress is the transformation of anomalies and unsolved empirical problems into solved ones. As against empirical problems, scientific researchers can also face conceptual problems. Laudan cites the



astronomical contributions of Ptolemy. He says the criticism against Ptolemy did not question its adequacy to solve the chief empirical problems of observational astronomy. The criticism was directed against the conceptual credentials of the mechanism Ptolemy used for the solution of astronomical problems. We also experience a conceptual problem when a theory is discovered to be logically inconsistent and self-contradictory. Conceptual problems may also arise from ambiguity or circularity.

Intra scientific problems can arise when one scientific theory can go counter to the theory accepted in other parts of science. One of the most powerful arguments put forward against Copernican Astronomy was that it runs counter to the fundamentals of highly established physical theories. Intra scientific conceptual problems emerge because scientific disciplines can never get completely independent of one another. It is so because problems within the domains of physics, chemistry, biology, astronomy etc always criss-cross and interpenetrate. Normative problems can also arise in the scientific domain. Science is conducted by rational agents and has to have certain aims and goals. There are crucial problems with regard to the articulation and appropriation of those goals. It is through an appropriate methodological strategy that we can achieve some clarity as to what or what not should be done by the scientists with a view to achieving the cognitive, epistemic and practical goals of the scientific research. Historically speaking, such normative issues have been responsible for great debates and controversies with regard to theory acceptance. As science is goal-oriented activity and goals and methods are settled by scientific minds, human goals finally operate within scientific domains. In view of the same, great methodological controversies have cropped up in the history of science on grounds of both method and purpose. Science according to Laudan also experiences what may be called world-view problems. These problems arise when a particular scientific theory



is seen to be incompatible with some other body of accepted beliefs. As it happens, our religious and cultural beliefs and values go beyond the scientific domain. For example, the mechanistic theories of physics were discarded by various philosophers of sixteenth and seventeenth centuries for such theories were incompatible with teleological and theological explanations and interpretations inspired by Christianity during those times.

Laudan underlines that a research tradition may be highly successful in solving problems. However, it does not mean that the research tradition is confirmed as true. Problem-solving capacity does not tell us anything about truth or falsity of a tradition. A research tradition may be highly successful at proliferating fruitful theories and yet it may suffer from huge ontological and methodological flaws. It can also happen that a particular research tradition is grounded on sound ontological and methodological positions and yet is incapable of generating theories that can solve urgent problems of contemporary scientific research. Rejection of research tradition signifies only a tentative decision to go in for an available alternative that can prove to be more successful at solving problems (Ibid., pp. 82-83). As it happens, in course of historical evolution of science, the success of a theory is highly suspect if the theory is linked to an unsuccessful research tradition. Conversely, even an otherwise inadequate theory, will score high on social acceptability if it is associated with a highly successful research tradition. What it amounts according to Laudan is that success of a tradition cannot be regarded as the basis of its truth, and so, failure of a research tradition does not necessarily constitute its falsity. In view of the same, Laudan underlines, a research tradition should not be judged in terms of truth or falsity. Research traditions are products of history. They are created for solving the problems. They are articulated in a particular intellectual context and like other historical products; they register both rise and fall in course of time.



Like other historical products, they originate, develop, achieve success or face failures and finally die or peter out and cease to be regarded as serious instruments for scientific progress (Ibid., p. 96). A scientific theory can never negotiate truth as a recognisable goal. As rational agents, scientific researchers should have a publically recognisable goal. If the goal is achieved, it should merit public celebration or acknowledgment. Therefore, truth finding should be discarded as a goal of science as a scientific theory can never culminate into a recognisable truth-attainment event. So truth can never be a goal of science or the goal of an individual research (Leplin, j., p. 196). Historical accounts of science tend to ascribe transcendental properties such as truth or certainty as a goal of science. If science is truth oriented, we can never know which scientific theory is true or approximately true and which is not. We can never bring out to characterise a theory as truth-like nor do we have an epistemic criterion on the basis of which we could legitimately judge one theory to be truer than the other (Hacking, I., p. 145).

CONCLUSION:

The upshot of Laudan's philosophy of science is that the fundamental objective of scientific research is trying to explore or discover solution of cognition problems which are basically of two types—empirical and conceptual problems. Scientific theories are not to be appraised in terms of truth or falsehood but in relation to their problem-solving effectiveness. A theory having greater problem-solving effectiveness is more apt and relevant or better than a theory with lesser problem-solving effectiveness. It is the problem-solving effectiveness of scientific theories that characteristically defines scientific progress. Maximisation of scientific progress constitutes the essence of scientific rationality. However, theories go on changing and scientific rationality consists in using the best available specific theories. It is a research tradition which suggests and sets problems, evaluates their significance and



suggests ways of solving them. In view of the same, an evaluation of a scientific progress or scientific rationality entails comparison of research tradition. Whether any given research tradition is adequate or inadequate is itself a function of the problem-solving effectiveness of those scientific theories which together constitute a research tradition.

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CHOICE BASED CREDIT SYSTEM: A RECIPE FOR STUDENTS

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Introduction:

India inherited a system of higher education which was not only small but was also characterized by the prevalence of large intra/inter-regional imbalances. Determined efforts were made to build a network of universities, and their affiliated colleges which provide incredible outreach to country of vast diversities. Today, the era is of radical changes in education and academic field. The times are changing rapidly than even before. The upcoming generation is in the state of dilemma. One needs to find a system that matches students' scholastic needs as well as their personal aspirations. India needs multi-dimensional and broad-based quality education to maintain its leadership in the 21st century. Therefore, India should show the concern over the quality in education as the education in India is not competitive in terms of the quality and quantity with other countries. A system with perfect blend of quality enhancement to stand in competitive market and flexibility to meet the students' requirement is the need of the hour. Choice based credit System (CBCS) can be a panacea in this case, if implemented systematically.

- This approach is, undoubtedly, revolutionary. One needs to think 'out of box' to bring change, the one of radical nature.
- CBCS system provides ample scope to extend one's vision. A plethora of subjects are offered to students. Besides, the benefit of diversified liking can be availed through this system. Interests and liking of students is the base of CBCS system. For example, a science student can study psychology at the same time. Thus there is a scope for opting for a specialized subject



along with the subject of one's choice. Of course , the core subjects and the choice based subjects have different weight age , rightly termed as 'credits' .In short , the system paves way for flexibility in education.

- A National Aspiration that every graduate should not only have disciplinary knowledge but also be armed with a set of core competencies and switchable skills is the need of the hour. Acquiring skills in numeracy (Quantitative /analytical thinking), language, communication and networking, human relationships, accessing and managing information, and imbibing the spirit of competitiveness and innovation (out of – the box view of things) are necessary for successful careers in the 21st century. This portfolio of 'core skills' is great enabler for employment, entrepreneurship , good citizenry ,knowledge and wealth creation and should be viewed as inherently complementary to learning for scholarship, disciplinary expertise and intellectual enrichment.
- This system, if implemented effectively, can create ample job opportunities .Post graduates candidates from various streams can get an opportunity to become teachers and built up their careers.
- CBCS, supported by semester system instead of annual examinations is more advantageous to students. Students are benefited more from syllabus point of view .Curtailed syllabus with the same weight age implies that student have less scope to leave the question as 'optional question ' . The corner questions also have to be taken heed of. Thus, less but detailed syllabus is the motto of CBCS system. This system may thus, pave way for quality education if implemented effectively.



- Now curtailed syllabus does not mean incomplete syllabus. The subjects and the topic therein are judiciously divided among different semesters. Thus, from the student 'point of view, chapters are reduced but are covered in more detail.
- Introduction of diploma and honors certification along with the degree certificates is yet it's another advantage. A student unable to complete the degree course can at least get diploma certificates of university for one year's course. Those who opt for additional one year course are awarded with honors certification. Anybody desirous of further studies after the degree course, but unable to join the Master's course may be benefited.
- This system will facilitate inter institution transfer of students after completion of a semester. Thus, part completion of an academic programme will be done in the institution of enrolment and part completion in the specialized institution. This is a flexible and pragmatic approach.

Why we need Choice Based Credit System?

Why not a student earns a few credits from one college and transfers the credits to some other college? Why not a student who is working on a part-time- basis earns a few credits and stretches his studies to four or five years according to his convenience? Why is there a kind of compulsion to complete a degree programme in three years? Why is there no provision to change the college after earning a few credits? The academicians often talk about universities and the industry collaborations. Why not a few credits earned in a related industry are considered within the curriculum? Why the government can't make such provision where in as per the tastes and the interests of student one can select the courses and complete the undergraduate programme or post graduate programme. Such are the question normally asked by



the present generation youth when he wants to pursue higher education from the universities or colleges.

At present, much of our higher education is uni-disciplinary or within a narrow spread. Specialization in a given discipline is only valuable in so far as it allows the learner to link that discipline with the real world and contextualize his /her own conceptions of life and its various phenomena. Whenever education does involve inclusion of disciplines other than the major one that student is studying, it is in the form of 'subsidiary' subjects. By their very nomenclature these subjects are seldom regarded as serious, either for the assessment they carry, or least of all, for their content. Likewise, the teaching and syllabi of these subjects, over a period of time, also become a poor in quality and motivation. Hence, currently despite going through the motions there is no real learning across disciplines happening. Contextually understanding a particular subject or discipline, and applying its concept to worldly questions are an acknowledged aim of education, particularly at the higher levels such as undergraduate education. Curricular reform in this regard means integrating a given subject to which the student devotes a majority of her/his time with other relevant subjects is therefore essential to improve the current undergraduate education structure. One way of improving the quality of teaching of these additional discipline and stimulating students' interest is to allow students for whom a subject is primary. For a instance, a geography student should study and undergo evolution of mankind as an optional subject along with students for whom mankind constitutes the primary subject. In sum, there is need to expose students, especially at the undergraduate level, to various disciplines like humanities, social sciences aesthetics etc in an integrated manner. This should be irrespective of the discipline they would like to specialize in subsequently. Even in the 11th plan under the new initiative of academic reforms in the higher education institutions,



UGC reiterates that universities are autonomous institutions and have necessary freedom to experiment new ideas and adopt practice which they consider appropriate for promoting relevance, quality and excellence and equal access, with in the broad frame work of the national policy. One of such examination –cum academic reform to be brought in the existing higher education system is choice based credit system (CBCS). The main requirement for this system is:

- Curricular flexibility and students' mobility is wherein there is an urgent need of introducing credit based courses and credit accumulation. In order to provide with some degree of flexibility to students' we need to provide for course duration in terms of credit hours and also a minimum as well as maximum permissible span of time in which a course can be completed by a student.
- Continuous updating and revision of curricula is something which must be deeply in grained in the academic culture of university. Each individual university must ensure that the curricula development exercise leading to major revision in course contents and curricula is taken up every three years.
- Uniform academic calendar across all institutions of higher education. Universities need to streamline their examination process such that the results are declared in a time bound manner and no student suffer in his/her career mobility and academic progression due to delays in declaration of results and issue of mark sheet.

Presently all these provisions are confined to very few universities. Also there is a strong resistance from academicians and educationists as they thought this will increase the burden on the teachers. But truth of the matter is that we can stop wastage and stagnation, create more job



opportunities and above all the courses will serve the need of the students who will pursue it not out of compulsion but for passion.

What is Credit System?

The credit-based system essentially implies a redefining of the curriculum in to a smaller measurable entities or 'modules' with the hours required for 'learning' these –not 'teaching'–being at the primary focus and the development of a mechanism whereby these modules can be combined in different ways so as to qualify for a certificate, diploma or degree. In a sense, therefore, the completion of a single 'module' of learning can pave the way for learning other modules either in same institutions or elsewhere and a combination of modules in keeping with the needs and interests of the learners illustrates the much talked about 'cafeteria approach' to learning with the learner at the centre stage of all academic transaction.

Students' benefit from Credit System?

Credit system will bring in much-required shift in focus from teacher centric to student centric education. The workload estimated is based on the investment of time in learning, not in teaching, it helps to record course work and to document learner workload realistically since all activities are taken in to account – not only the time of learners spend in lectures or seminar but also the time they need for individual learning and the preparation of examination etc. segment learning experiences in to calibrated units, which can be accumulated in order to gain an academic award, respect 'learner Autonomy'. It will allows learners to choose according to their own learning needs, interests and aptitudes, and many other benefits. It also facilitates the mobility to learner from one institute to another.



What is Choice Based Credit System?

University grant commission's report titled 'Inclusive and qualitative expansion of higher education " has outlined major challenges in higher education space and also suggested reforms for the 12th five year plan(FYP). The report submitted to the human resources Development ministry and planning commission stresses on the fact that higher education in India is passing through a phase of unprecedented expansion, market by an explosion in the number of institutions and a quantum jump in the level of public funding. The report also raises concern about the poor performance of the majority of our higher education institutions in the area of quality on a relative global scale. Quality and the provision of relevant education is another major challenge for the higher education sector .It emphasizes upon important steps like regular revision and upgrading of curriculum , introduction of semester system , choice-based credit system and examination reforms which are yet to be implemented .Even the report on challenges of higher education (2010) outlines challenges which our higher education system is facing due to globalization . They can be met by:

- Making the curriculum interdisciplinary .All cutting edge development in technologies occurs at the interface of two or more discipline. Interdisciplinary approach enables integration of concepts, theories , techniques and perspectives from two or more disciplines to advance fundamental understanding or to solve problems whose solutions are beyond the scope of a single discipline.
- Bridging the gap between professional and liberal education .This will greatly improve the employability of students.
- Promoting student's mobility-horizontal as well as vertical.



- Collaboration with industry and foreign partners to faster innovation. This will go a long way in capacity building of student.

Research and experience has revealed that the learner centric contextual curriculum recommended and the desired learner outcomes proposed can be achieved mainly through choice based credit system (CBCS). The system, which is in vogue in most of the universities of north America and Europe, is thought to be a vital tool of bringing the transformation in the traditional higher education system of India. CBCS is a proven, advanced mode of learning in higher education which facilitates a student to have some freedom in selecting his/her own choices in the curriculum for completing a Master's degree programme. It is more focused towards a student choice in providing range of modules available in single campus across various disciplines offered by experts in the subjects. It leads to quality education and with active teacher-student participation.

Conclusion

While the CBC system has been operative in several countries since quite some time now, in India very few universities have introduced this system so far. A few universities (Appx. 35) in the country have implemented the system. Presently, most of the universities and colleges in India are practicing the annual and semester systems of examination. If we adopt the CBSC system by revamping the traditional method of examination systems, we expect the gross enrollment in higher education to increase and knowledge of students to improve. The UGC has asked the universities to introduce the choice-Based credit system(CBCS) which will facilitate inter institution transfer of students after completion of a semester. The CBCS will facilitate part completion of an academic programme in the institution of enrolment and part-completion in a specialized institution. But to



implement the CBSC, institution of higher education need to review curricular contents, terms paper and assignments of various programmes. It is also possible only when we have innumerable approaches to learning resources, such as e-contents through open source, learning modules, sharing of credits intra faculty, and inter-faculties, intra –university and inter-university. Induction of choice based credit system is very challenging, but highly desirable.

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COPYRIGHT PROTECTION TO COMPUTER SOFTWARE-AN OVERVIEW

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Introduction:

The access to the information is emerging information system which is becoming a part of everyday life¹. In new past it was unimaginable to avail information speedily, but it is possible due to recent advancement in the field of computer technology. The information system has made great in roads in human life and activities! With this new technology and an increase of importance of intellectual property rights, Computer Programmes, Computer Softwares , Computer database are various kinds of key issues².If a country has to progress it has to adopt the modern information system in a big way. This can be done only through computers³. Once it has been reconciled to the idea of the computer being part of our life. It need to be looked into various problems involved in the protection of computer Software⁴. Copy right Protection is generally granted to original works, however the growth of technology has given rise to new concepts like computer software, screen lay outs, various works on the web etc, which also need effective protection under copy right law.

¹ Article-Copyright to computer software-A legal study by-miss Tanaya Tarai & Mr. Kundendu Kumar Deo by webservice

² Copyright and trade mark law relating to Computers author by Pankaj Jain Pandey Sangeet Rai Eastern Book Company Lucknow

³ Internet source www.copyrightprotection.com Computer software

⁴ Copyright and trade mark law



1. Concept of Copy right Law:

Copyright is a kind of intellectual property and has gained importance in recent times due to the development of Society and Civilization⁵. The scope of the copy right law also broadened, coping with the innovations in the field of technology, as it is a subject matter of copyright. The copyright law has spread not only from the field of literary, dramatic, and musical works but also artistic, designers architects sound recordings etc. The law of copy right in India not only try to protect the right of the creator or author of the work but also enforce it. The need for protection of the copyright has increased many folds, because of the latest developments in the field of copy rights. The copyright Act of 1957, (herein after called as act) in its objects clause reaffirms this Principles and States that any art and literature needs healthy environment and sufficient protection of the interest of the author or owner of a particular work. Copy right is considered as a vital social interest and worth protected. This Act also enacted to check piracy which deprives the author or copyright owner, and the fruits of his labour⁶. The term literary work under the Act has Stated to “Included Computer Program tables and compilations including Computer data base⁷.”The Act therefore brings the Computer Programs with in the definition of a literary work and would therefore provide the same protection as would be available to a literary work.

It is clear even to the untrained eye that from the moment a Computer Program is written out of a piece of paper, Copy right subsists in the work, in the same way as it would in respect of any other

⁵ ALD page no 21 2011 March

⁶ G.B. Reddy IPR and Law First edition Gogia Law House Hyderabad Page No 4

⁷ Section 13 of the Copyright Act, 1957 provides: Works in which copyright subsists.- 'Subject to the provisions of this section and the other provisions of this Act, Copyright shall subsist throughout India in the following classes of works, that is to say,- original literary, dramatic, musical and artistic works, cinematograph films, and sound recordings.'



literary work⁸. However, it is not so clear is whether copy right law could be extended to cover Computer Programmes. Which exist nearly in magnetic or electric form or as specific circuits caught on to Silicon Chip. With the amendment of the copyright Act-1957 in Amendment in 1994 the definition of Computer Program was introduced. The Indian government has been an active participant in protecting the rights of the copy right holder. Both department of Electronics and Ministry of Human Resource Development have actively helped in bringing amendments from time to time which resulted in copy right Amendment Act of 1994. India was one of the first country in the world to provide statutory protection to computed software and is one of the stringent measure to crub piracy in the world. The Salient features of the Amendment Act of 1994 where in computer software is protected is as follows:

- The definition Computer Program,
- Explains the right of copyright holder
- Position on rental of software
- The rights of the user to make back-up copies and
- Punishment and fines on infringements etc.

According to Section 14 of the copyright Act, it is illegal to make or distribute copies of

Copyrighted software without proper or specific authorisation. The only exception is provided by the act, which allows a backup copy purely as a temporary protection against loss, distribution or damage to the original copy. The act prohibits the sale or to give on hire, or offer for sale or hire, any copy of the computer program without specific authorisation of the Copyright holder. In this regard software copyright is different from copyright of literary work as they can be

⁸ The Law Relating to Computers and the Internet by author Rahul Matthan Law Publication Pvt Ltd 2000 edition Butter Worths India New Delhi Page No 227



resold. Software is licensed to use in a particular machine. Indian law prohibits unauthorised duplication of software for use by different users or machines within an organisation⁹. The copyright infringer may be tried under both civil and criminal law. The Act provides for jail term of 7 days to three years and fines ranging between Rs 50,000 to Rs.2,00,000 and or both (Nasscom,2003).

As per the Indian law, it is not necessary to register with the Copyright Office to get copyright protection, the Berne Convention for protection of literary and artistic works to which India is a signatory deals with copyright of any work if the member countries is protected to all signatory countries. Through registration of copyright is optional, it is however, a good idea to incorporate a copyright notice, as it is helpful in an infringement suit. Copyright protection, is automatic from the moment the work is embodied in some medium like CDROM, magnetic tape, diskette or paper. For registration, one has to send three complete copies of works whether published or unpublished along with fee of Rs 10 to the Registrar of copyrights, New Delhi.

Definition of Computer Software Under Copyright law on Act 1957

U/Sec-2ff(C) :

‘Computer Programme’ means a set of instructions Expressed in Words, Codes, Schemes or in any other form, including a machine readable medium, capable of causing a computer to perform a particular task or achieve a particular result”.

U/Sec-2(ffb) :

Computer includes any Electronic or similar device having information processing capabilities.

Sec-2(O)

⁹ IPR for IT based technology from internet source



Literary Work includes Computer Programs, tables and compilations including computer database.

The term “Computer Software” like many other terms lacks of precise definition. But generally speaking the term includes a set of computer programs, procedures, database and associated documentation related to the operation of a Computer, Computer system or Computer network. Programing language and software tools to be used to develop Computer software. A set of programs are called as ‘Computer Software’¹⁰,

Computer Programs are generally written by a team of skilled people comprising several programmers. Each program is written in any section of language for eg C C++ Java etc. Once all Programmers complete their task a complete version of source code is developed which is in human readable medium an object Code will be only in a machine readable form. A Computer Programme is a combination of object and source codes. The definition of a Computer Programme in the copy

right Act, includes all the representations of Computer Programmes, regardless whether they are reduced to writing on in machine readable medium on form¹¹.

The copy rights Act safe guards specific expression of ideas and notions rather than ideas themselves. Here idea cannot be copyrighted, unless such ideas are specifically expressed in some required form. The Primary function of the Act is to protect from annexation by other people the fruits of a man’s, work, Labour, Skill, or taste¹². Copy right gives the owner various rights such as right to public performance, and display of his own work and specifically to exclude others from using

¹⁰ Described by the Oxford University Press Dictionary of Computing (3rd Edn.,1990)

¹¹ ibidi

¹² The Law Relating to Computers and the Internet by author Rahul Matthan Law Publication Pvt Ltd 2000 edition Butter Worths India New Delhi Page No 279



unauthorised copy of his official work, right to distribute his work, adoption right etc.

After the closer examination of the definition, it becomes apparent that rather than being a Positive right that grant the author the permission to do certain activities, copy right is a negative right that enables the author to prevent any other person from dealing with the copy righted material in any one of several prescribed ways . It is also bundle of rights and not just one right, that entitles the owner of the copy right to take Civil and Criminal action against the violation or infringement of his rights. Under various provision of copy right Act-1957 Sec: 13,14,17,51,52 and 53 enshrines rights and protecting individuals who create the Software.In all most all legal system, the Computer software is protected under copy right law. In India the computer software and programmes are clearly protected by the Copyright law, which includes items like programme manuals, paper punchcard, and magnetic tapes or discs required for operation of the Computer. The other area is various types of computer generated which works have been created by on with the aid of the computer which are stored and access made available in printed documents¹³. Whereas the patentlaw, protects new and innovative forms of Computer hardware. Sometimes it is difficult to differentiate software and hardware protection under the Act. In Dyason Vs Autodesk Inc 1990 96 ALR 57. Although it is clear that Computer Software in protected by Indian Copyright law, the India patent Act 1970 does not recognise patent protection for Computer programs. The only mechanism for the protection Computer software in India is the Copyright law. It is U/Sec 2(o) of the Copy right Act which recognise work entitled to copy right protection. For the purpose the Act Protects computer Programmes, and data base from unauthorised

¹³ Protection intellectual property in Cyber Space Page No 45



copying and also computer software. At present in India the idea of Software patent does not exist.

2.National & International Initiatives :

International Scenario

The new technology has led to the enhancement of the scope of international copyright. The increasing and the widening scope of copyright has generated interest globally in focussing on key issues such as the protection of computer programs, computer software, databases, including those originating in foreign countries. There are several international copyright conventions that have had significant effects upon the development of the copyright law. The Universal Copyright Convention and the Berne Convention for the protection of Literary and Artistic works oblige member States to provide same rights to authors of other member States as they provide to their own authors¹⁴. The World Trade Organisation has endeavoured to formulate certain important provision to enable the encompassing of new rights in copyright by entering into an Agreement on Trade Related Aspects of Intellectual property Rights (TRIPS).

1. Agreement on Trade Related Aspects of Intellectual Property Rights (TRIPS)

The TRIPS agreement is added to the agreement establishing the WTO, in Annexure IC.

It is a Multilateral Trade Agreement forming an integral part of the WTO Agreement, binding all member countries as per Article II(2) of the WTO Agreement. The TRIPS Agreement was signed at Marrakesh in April 1994 and is probably the most significant development of the century in international intellectual property law. However, with

¹⁴ Copyright and trade mark law relating to Computers author by Pankaj Jain Pandey Sangeet Rai Eastern Book Company Lucknow Page No 82



regard to copyright and computers, the WIPO Copyright Treaty, 1996 also plays a vital role. The TRIPS Agreement adopts portions of the Berne, Rome and Paris Conventions and the defunct Washington Integrated Circuits Treaty in enunciating norms for intellectual property laws. Additionally, it provides for the administrative and judicial enforcement of intellectual property rights and includes provisions for broader control of the trade in infringements. The TRIPS Agreement generally deals with the whole of intellectual property and copyright and the related rights are dealt within part II, Section I (Article 9 to 14) of the Agreement. It provides that, "Members shall¹⁵ comply with Articles I through 21 of the Berne Convention (1971) and the Appendix thereto. However, Members shall not have rights or obligations under this Agreement in respect of the rights conferred under Article 6bis of that Convention or of the rights derived therefrom¹⁶

From the above, it is amply clear that the approach taken in the copyright provisions of the TRIPS Agreement is to adopt the regime of copyright protection stated in the Berne Convention. Article 6bis of the Berne Convention speaks about the moral rights of copyright owners. They are rights independent to economic rights provided under other provisions of the Convention. Thus we find that members of the TRIPS Agreement are not entitled to moral rights laid down in the Berne Convention but only to economic rights. It provides that, "Computer programs, whether in source or object code, shall be protected as literary works under the Berne Convention (1971)".¹⁷ The inclusion of this particular article has made it very clear that all kinds of computer programs, whether in object code or in source code, shall be protected under the ambit of literary works as described under Article 2

¹⁵ Article 9.1

¹⁶ Protection of intellectual property in cyber spaces Page No 45

¹⁷ Article 10.1



of the Berne Convention, thus leaving no Lacunae or flaws in the protection of computer programs. Any program bearing any kind of artistic work, dramatic work or musical work would thus automatically be protected under copyright according to the Berne Convention irrespective of what kind of different works it possesses. further provides that, "Compilations of data or other material¹⁸, whether in machine readable or other form, which by reason of the selection or arrangement of their contents constitute intellectual creations shall be protected as such.

Thus, computer databases which are generally in machine readable form and which have been formulated with one's own intellectual creation shall be protected under the Convention. The article¹⁹, specifies that "Such protection, which shall not extend to the data or material itself, shall be without prejudice to any copyright subsisting in the data or material itself". Further the Act clarifies that "In respect of at least computer programs and cinematographic works, a Member shall provide authors and their successors in title the right to authorise or to prohibit the commercial rental to the public of originals or copies of their copyright works". This particular article has thus enlarged the scope of the rights of owners of computer programs. The Agreement requires authors of computer programs and producers of sound recording to be given the right to authorise or to prohibit the commercial rental of their works to the public. Since the TRIPS Agreement was finalised at the end of the year 1991, (when these were not yet signed) it was left to later day negotiators in World Intellectual Property Organisation (WIPO) to try to resolve some of the copyright, Internet and modern technology issues.

¹⁸ Article 10.2

¹⁹ Article 11



2. World Intellectual Property Organisation (WIPO)

WIPO is an organ of the United Nations (UN), Before its establishment, there were many organisations established under certain individual organs. The WIPO deals with intellectual property rights regime globally. The Convention establishing the WIPO was signed at Stockholm on July 14, 1976. WIPO has its headquarters at Geneva. WIPO's activities are of four kinds: registration, promotion of Inter-governmental cooperation in the administration of intellectual property rights, specialised program activities and latterly, dispute resolution facilities. In 1996, member countries found it necessary to form a treaty to deal with the protection of copyright with the evolvement of new technology.

WIPO Copyright Treaty,1996 :

This treaty was adopted by the Diplomatic Conference the Geneva on December 20,1996. It is special agreement within Article 2 of the Berne Convention. It is related to digital technology and the Internet. The WIPO copyright treaty is a special agreement amongst the member countries to grant authors more extensive rights than those granted by the Berne Convention. It also contains other provisions not contrary to the Berne Convention. Article 4 of the treaty provides that, "Computer programs are protected as literary works within the meaning of Article 2 of the Berne Convention. Such protection applies to computer programs, whatever may be the mode or form of their expression." Article 5 further states that "Compilations of data or other material, in any form, which by reason of the selection or arrangement of their contents constitute intellectual creations, are protected as such. This protection does not extend to the data or material itself and is without prejudice to any copyright subsisting in the data or material contained in the compilation." We thus find that both the above mentioned articles have been restated from the TRIPS



Agreement. However, WIPO has deleted certain controversial words from the articles of TRIPS. In TRIPS Agreement, computer programs whether in object code or source code are protected as literary works. However, the WIPO Copyright Treaty generally covers all kinds of computer programs and not just the object code or source code of computer programs. Also compilations of data in any form are now protected under WIPO Copyright Treaty (Instead of only those in machine readable form in TRIPS). Thus, we find that ignoring the minor changes adopted by WIPO Copyright Treaty, it is not inconsistent with the TRIPS Agreement.

3.Right Confered under Copyright Law of the Software

Copyright is a collection of various rights. According to the Indian Copy right Act-1957, different rights have been granted to the owner of the copy right depending up on the nature of work. The copy right owner is granted a number of exclusive rights that allows him/her exercise some control over the exploitation of the copyright, against infringement from unauthorised persons. Computer programs is included in the definition of the literary work. However, depending upon additional features of this new type of literary work, certain additional rights have also been enumerated in the Act, the owner of the copyrighted Computer Program has the following rights U/Sec-52, and is reinforced by the author's rights granted U/Sec-57 and 63-B Sections, like Reproduction, Right to Issue to Public, Public Communication Right, Translation Right, Adoption Right, Right to do in relation to translation or an adoption of the work any of acts specified above, Right to sell or give on hire on offer for sale or hire any copy of Computer program.

a. Right to Reproduction:



Copying generally means reproducing work in any material form²⁰. As in any other literary work the owner of the Copy right with respect to computer is infringed by making without permission of the owner or author or holder, which can be by way of licence, a copy of program or of a substantial part of it²¹. The reproduction made in the course of running a copy for licence or owner, or on their behalf there is no provision to the contrary and it is not an infringing of copy or the Program does not amount to an act of infringement. It does indeed constitute a normal use of the software. The owner of a Computer program thus has exclusive right to reproduce the work any material form including its storage in any medium by electronic means²².

b. Right to Distribute the Programme:

Distributing Copies²³ of work to the Public is restricted act under Copyright law and will

amount to infringement of copyright, if done without the permission of the owner. If the Copies of a Particular work one distributed amongst the public without prior permission of copyright owner he is held liable for violating the distribution right of such copy right owner²⁴. Keeping it in internet for public purpose may be regarded as violation of right of the holder of copyrights. However, the question that arises is whether any person or other than owner has the authority to distribute such Computer program or software, to the Public the Copyright Act-1957

²⁰ The Copyright Act, 1957 has provided the term 'reproduction' instead of 'copying'.

²¹ M.S.Associates v.Power, [1998] FSR 242.

²² See Section 14(b)(i) of the Copyright Act, 1957; also see Section 17(2) of the (English) Copyrights, Designs and Patents Act, 1988.

²³ The Copyright Act, 1957 has provided with 'the right to issue copies to the public' instead 'the public distribution right'.

²⁴ As per Section 14(b)(i) of the Copyright Act, 1957, the owner of the computer program has certain rights to do any acts specified in clause (a) of Section 14, section 14(a)(ii) provides the owner the right to issue copies of the work to the public.



clearly lays down that the owner of a Computer program has the right to issue copies of work to public not being copies already in circulation²⁵

c. Right to make an adoption:

The meaning of adoption in relation to Computer Programs is a version of a work whether or not in the language, code or notion in which the work was originally expressed not being a reproduction of the work. " The meaning of the word 'Version' is a translation in a particular form a variant of anything." Adoption may take place when a high level source code Computer program is completed into an object code programme. The requirements of an unauthorised adoption of computer program is a whole or a substantial part of the particular form of expression of the program in which copy right is claimed appears in the already infringing program. Infringing the programs in same language level or if different language level or If already infringing program has been produced by direct or indirect use in described as copyright program²⁶

d. Rental rights:

Rental rights of the owner of a Computer program generally means the right of making

Available the Computer program for use on the terms that copy will be returned to the owner for direct or indirect economic (or) Commercial advantage. U/Sec 14 (b) (ii) of copy right Act-1957.

This Act may be made by making the Computer program available online or by electronically transmitting it by using any type of cable or wireless technology including the internet. The Act also

²⁵ See Section 51 of the Copyright Act, 1957.

²⁶ Coogi Australia pvt Ltd Vs Hus port international pvt Ltd (1998)



provides the right to enter into commercial rental agreements in respect of the program, the owner of a Computer program has the right to give on hire the computer program irrespective of whether such, computer programs have been sold to other people, sale or other distribution does not exhaust rental right which demonstrated that rental is a further form of Commercial exploitation. The author should be better able to recop the substantial investment in the creation of new work²⁷

4. Copyright Infringement of Computer Software

Always the laws gives remedy for its violation or infringement and this is no exception, Copyright protection to software is also granted and protected against infringement. Infringement usally occurs where the dependant, without the permission or authorisation from the owner of copyright, uses the copyrighted work, material, or more. This is commonly called "Software Piracy" This type of infringement is called direct infringement. Whereas, when the defendant authorises a third party to use and copy the material without any authority, is called indirect infringement. Creating a copy and giving it to someone else, constitutes copyright infringement most of the jurisdictions. It is not infringing under specific circumstance such as 'fair use' and fair dealing etc. ^(FN-19-38) Copy right Law does not protect ideas it protects the " expression of the 'ideas'. However the point of demarcation indicating a translation of idea in to expression is an issue that has the subject of serious debate. In Apple computer, Inc Vs formula International Inc ^(FN) it was argued that the programs which control and do not produce direct visual images of expression are not entitle to copyright protection. **Whelan Associates In (vs) Jaslow Dental Labourtray**²⁸ In this First "look and feel" case. It was held that the Computer program aim to carry out certain tasks. Anything which is

²⁷ Metronome Musik Gmb H v. Music Point Hokamp GmbH, (1999) FSR 576.

²⁸ 797 f 2d 122 (3rd Cir 1986)



essential to carry out such aimed task is an idea anything which is not and could have been written in different way to reach the same idea and expression. Copyright protection may extended beyond the Program's literal code to their structure and sequence and organisation.

In Computer Association Internation Inc Vs Atai²⁹In this case court develop a three part test know as abstraction /filtration/ Comparision test.**Rubber Co (vs) Bando Chemical Industries Ltd**³⁰

According to this doctrine when the possible ways to express an idea are limited expression merges with the idea therefore not a subject of copyright law. The essential Principle of copyright law have had varied manifestation as far as software appertains. The question about whether sourcecode and objectcode both are protected by copyright, has troubled the court. There was no difficulty regarding the terms of source code which is in human readable medium however, the object code which is in machine readable medium posed problems. **In Japan Capsules Computers (Vs) U.K. Ltd (Vs) Sonic Game Sales J.Whitford accepted**³¹ That these and other ancillary material could be protected copyright

In Lotus Development Corporation (Vs) Paperback software Internation³² The non literal elements comprising of the user interference, menu command system and moving cursor menu were held protected by copyright though useful, the Judgement was overturned in Lotus Development corporation (Vs) Borland international Inc however the reasons was not so much connected with any disagreement with the way of testing of us

copyright Act Sec-102 (b) which derives copyright protection to a method of operation and the Lotus menu system was held to be one. It has been argued in **NEC Corporation (VS) Intel corporation**³³ etc.

²⁹ 20 Uspq 2d 1641 (1982)

³⁰ October 19 10 cir 1993 discussed in 10 (CLSR 101 1994)

³¹ Unreported 16 October 1986.

³² 740 F SUPP D mass (1990)

³³ 10 USPQ2d (BNA) 1177 (ND Cal 1989)



The applicability of the copy rights, in actual sense of computer software and their infringements, are discussed above cases, by various countries Including India for the Protection of computer software.

5. Remedies available for Infringements

Where there is a right there must be remedy. The right without remedy is like a same person Accordingly the right on computer software cannot remain an exception under the copy right Act-1957 three types of Remedies are available they are Civil, Criminal, and administrative remedies. Remedy is a kind of redress given to copyright owner against the infringement of copyright. To establish a copyright infringement, a plaintiff must prove ownership of a valid copyright and copying of constituent element of the work are original³⁴.

i. Civil Remedies :

Civil Remedy is very important to have against the infringement of Computer software, it is clear that there are a number of options open to the owner of the copyright. In the first place, the owner can claim damages³⁵ either for infringement or an account of conversion under this remedy the party may initiate different actions, for the relief to the party Injunction . The party can initiate a case to restrain the infringing activities of opposite party. When an Injunction is filed before the court for restarain the infringer till the final order comes by the court.

a) Anton Pillar Order³⁶

In this order the inspection and Seizure order has been developed in order to facilitate prompt actions by injured parties who

³⁴ Intellectual property rights N.S. Srinivasulu Legal Publication New Delhi 2007 of Page No 96

³⁵ Under Section 58 of Copyright Act 1957

³⁶ Named after Anton Piller, the Plaintiff in the U.K in a case in which this order was passed for the first time P.Narayan, Page No 306



need to preserve evidence. This order is issued to permit on alleged injured party to visit, search and inspect the premises of a defendant or where the infringing activity takes place.

b) Marvera Order³⁷

Is an order of court granted either before final judgement in aid of final judgement. It may be granted whenever it is feared or there are reasons to believe that infringer is deling or will deal with his assets in such a way that they will either be dissipated on transferred to third party causing the plaintiff to deprived of the fruits of the judgment. Considering the nature of piracy. This order which can effectively prevents pirates from dealing with transferring assets is essential.

ii. Criminal Remedies:

Criminal remedies for infringement of copyrights. These remedies are independent of civil remedies and can be perused simultaneously. U/Sec-63 of the copyright Act-1957 provides the person who is knowingly infringes or abet the infrigenment of copyright in a work or any other right granted under this Act-1957. This section provides Punishment for 6 months and extending to 3 years and fine between Rs 50,000/- to Rs 2,00,000/- U/Sec-63A the court may provide are enhance penalty of imprisonment 1 to 3 years. Fine Rs 1,00,000 to 2,00.000 for all cases repeating offences³⁸. U/Sec-63(B) Knowing use of infringing copy of computer software or program shall be Punishable with imprisonment of not less than 7 day which may extend 3 years. Fine Rs 50,000/- to Rs 2,00,000³⁹. It is noted that copyright can be obtained in a Computer programme under the provisions of the copyright Act-1957. The computer programmes cannot be copies circulated or published without the permission of the

³⁷ Section 57 of Copyright Act 1957

³⁸ Section 65 of Copyright Act 1957

³⁹ Section 70 of Copyright Act 1957



copyright owner. If it is illegally or improperly used in the medium of internet is used to advance that purpose invoking the provisions of copyright Act-1957 and supplementing them with the stringent provisions of the I.TAct- 2000.

iii. Administrative Remedies:

Copyright Act-1957 specifically protects the computer programs the copy right enforcement in India has improved in the Amendment Act-1994, The powers Endowed on the copyright Law enforcement authorities are designed to speedy action and redressal, under the law any police officer not below the rank of sub-inspector. May If he suspects that a copyright offence is being pirated, Seize, without warrant all the copies all the copies of the work, and all plates used for the purpose of making copies of the work wherever found . He should produce then before magistrate as soon as possible. With infringing copies or pirated copies being reported⁴⁰.

Conclusion:

The law of intellectual property has become an integral part of the economic life in the world at large. The use of ideas and information that are of commercial value are being protected under this law. The revolution taken place in the field of information technology has posed challenges particularly in the area of copyright law. Through the Copyright Act, 1957 has incorporated adequate measures to protect the right of owners of copyright in general and authors of literary work in particular (the Computer Programme also defined as literary work). It is an indisputable prevailing fact that the authors of literary works are being exploited by publishers in many ways such as not paying remuneration or paying inadequate remuneration or royalties and non-disclosure of total number copies sold in the market etc.,

⁴⁰ Section 66 of Copyright Act 1957



Now a days infringement copyrights as become a global problem, as a result of rapid advancement of in technology. The copy right law provides various remedies like civil, criminal, administrative, etc. The I.T.Act 2000 Sec 43 provides for the penalty in case of damages to computer software, or system etc, and under section 79 of the Act provides the liabilities of the network providers for violations committed by their clients. The copy right Act and I.T. Act deals with the problem of copyrights in internet. In view of these, it the piracy has to be controlled effectively through the copy right law. There is a need to have a comprehensive legal frame work

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with in the sphare of copy right law. There should be covering exclusively computer programmes and copy right issues in internet. The piracy has become an integral part of day-to-day life style in most of the metropolitan cities and Indian Copyright Law failed to provide relief to the authors of original work. The Copyright confers a long lasting right in literary or artistic creation. In case of infringement of such rights law provided certain remedies to the owner. But Indian experience with the existing law shows that if not succeeded in this direction and still a lot is left to be achieved. New technologies is certainly bound to pose new problems in the field of video piracy, information technology, computer programmer, literary, dramatic, musical and artistic creation etc.

The need has arisen for enforceability of Copyright Act in fullest extent for copyright owners in India and also for international community of the world. India would stand by the expectations of the world at large in protecting the intellectual property rights and consequently benefiting all people of the nation in particular the world countries in general.



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हिन्दी औपन्यासिक संसार में उपभोक्तावादी संस्कृति का कुठाराघात

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सारांश :-उपभोक्तावादी संस्कृति ने हमारे समाज व उसके विचार, विश्वास को न केवल हाइजैक कर लिया बल्कि एक ऐसी संस्कृति पनप रही है जिसने हमारे तमाम मानवीय, सामाजिक और सांस्कृतिक मूल्यों को नष्ट कर दिया। हम उत्पादों का उपभोग नहीं कर रहे हैं बल्कि उत्पाद हमारे जीवन का भोग कर रहे हैं। वास्तव में उपभोग जीवन की बुनियादी जरूरत है। उपभोग के अभाव में हम तनाव का अनुभव करते हैं। वास्तव में मनुष्य की किसी जरूरत की वस्तुएं जो उपयोगी नहीं हैं लेकिन व्यावसायिक दृष्टि से जरूरी बना दी गई हैं, वे सब उपभोक्तावादी संस्कृति की देन हैं। वर्तमान उपभोक्ता समाज का उद्भव अमेरिका में हुआ। आज संस्कृति का स्वरूप स्थानीय न होकर भूमंडलीय हो गया है। संस्कृति एक मानसिक अवधारणा है जिससे समाज में भूमंडलीकरण के कारण बाजारवाद पनपा और बाजारवाद से उपभोगवाद। बहुराष्ट्रीय कम्पनियों ने उत्पाद को खपाने के लिए ऐसी परिस्थितियां निर्मित की जिससे उपभोक्ता वर्ग न चाहते हुए भी उपभोक्तावादी संस्कृति की तरफ आकर्षित होते चले गये। उपभोक्तावाद परिवार की सामन्ती संरचना पर मर्मांतक प्रहार कर रहा है। सांस्कृतिक राष्ट्रवाद और भूमंडलीकरण की संस्कृति भारत की राष्ट्रीय संस्कृति पर कुठाराघात कर रही है। साहित्यकार बाजारवाद की माया मोहिनी से बचते हुए लेखन का दायित्व निभाते हुए जनता को तैयार करने की चुनौती से लैस होकर सृजनशीलता का धर्म निभा रहे हैं। उपभोक्तावादी संस्कृति के कारण नई पीढ़ी में रिश्ता,सम्बन्ध और मूल्य का धनाधारित होना, अणु परिवार को बढ़ावा मिलना, धर्मान्धता के दावानल का सुलगना, पारिवारिक सम्बन्धों में बिखराव, पति पत्नी के सम्बन्धों के मायने बदलना,सामाजिक व सांस्कृतिक मूल्यों का ध्वस्त होना, भाइचारे की भावना का लुप्त होना आदि दुष्प्रतियों को समकालीन उपन्यासकारों यथा रवीन्द्र वर्मा,स्वयं प्रकाश,ममता कालिया, अलका सरावगी, प्रियंवद, मंजूर एहतेशाम आदि ने साहित्यिक विचारधारा का विश्लेषण किया है तथा सांस्कृतिक मूल्यों के संकट के प्रतिरोध में मानवीय सम्बन्धों को प्रश्रय देकर सामाजिक एकता की मांग की है जोकि आज का सामाजिक आवश्यकता है। यही इस पत्र का अभिप्रेत है।

बीज शब्द:- उपभोक्ता, बाजारवाद, राष्ट्रीय संस्कृति, सृजनशीलता,सांस्कृतिक राष्ट्रवाद।

उपभोक्तावादी संस्कृति अनावश्यक वस्तुओं को मनुष्य के लिए आवश्यक बना देती है तथा मनुष्य की सीमित आवश्यकताओं को सीमाहीन। हम उत्पादों का उपभोग करते करते न केवल उनके गुलाम बन गये हैं अपितु अपने जीवन के लक्ष्य को भी उपभोग करने के लिए तत्पर हो रहे हैं। यदि कहा जाये कि हम उत्पादों का उपभोग नहीं कर रहे हैं बल्कि उत्पाद हमारे जीवन का भोग कर रहे हैं तो कतई अतिशयोक्ति नहीं होगी। वास्तव में सर्वप्रथम हम उपभोग पर विचार करे तो इसके तीन आयाम उभरते हैं, पहला उपभोग उपभोक्ता विशेष की निजी हैसियत, सामाजिक स्थिति तथा उसकी आर्थिक अवस्था का प्रतीक है। दूसरा उपभोग व्यक्ति विशेष की रुचि और जीवन शैली से सम्बन्धित जानकारी मिलती है। तीसरा उपभोग

जिसमें व्यक्तियों और समूहों के उपभोग से जुड़े प्रतीकों के आदान प्रदान की प्रक्रिया की सूचना मिलती है। वास्तव में उपभोग जीवन की बुनियादी जरूरत है। इसके बगैर न जीवन संभव है, न जीवन में आनन्द का अनुभव करते हैं। इस तरह के उपभोग में हमारा भोजन, वस्त्र, दवा, ऋंगार के प्रसाधन आदि शामिल होते हैं। सौन्दर्य बोध विभिन्न कलाओं और विज्ञान को जन्म देता है तथा अपने परिवेश को नृत्य, संगीत व मूर्ति से सजाना, साहित्य और विज्ञान के जरिये वातावरण का अनुभव करना मनुष्य को आनन्द प्रदान करवाता है। उपभोग की वस्तुएं वे हैं जिनके अभाव में हम स्वाभाविक रूप से अप्रीतिकर तनाव का अनुभव करते हैं चाहे वह भोजन के अभाव में भूख की पीड़ा से उत्पन्न हो अथवा संगीत व कलाओं के अभाव में नीरसता की पीड़ा से। इसके विपरीत ऐसी वस्तुएं जो वास्तव में मनुष्य की किसी जरूरत या कला और ज्ञान की वृत्तियों की दृष्टि से उपयोगी नहीं हैं लेकिन व्यावसायिक दृष्टि से प्रचार के द्वारा जरूरी बना दी गई है, उपभोक्तावादी संस्कृति की देन है। जब उपभोग का महत्व बढ़ता है, तब उपभोक्ता समाज जन्म लेता है। हमारे सामाजिक सम्बन्ध संकुचित होने लगते हैं, मन में शांति और आक्रोश बढ़ जाता है। नैतिक मर्यादाएं घट रही हैं। व्यक्तिवाद, स्वार्थवाद, भोगवाद आदि कुप्रवृत्तियां बढ़ रही हैं। नवउदारवाद का दबदबा बढ़ने पर शिक्षा, स्वास्थ्य एवम् सुरक्षा जैसी सार्वजनिक सेवाओं को मुक्त बाजार के हवाले करने से उपभोक्तावाद को प्रोत्साहन मिला। उसकी जगह लेने वाले उपभोक्ता का जोर अपनी आवश्यकताओं की सन्तुष्टि के साथ-साथ अपनी शान शौकत, सामाजिक हैसियत और आर्थिक स्थिति के प्रदर्शन पर हो गया।

वर्तमान उपभोक्ता समाज का उद्भव अमेरिका में हुआ। शीत युद्ध के दौरान पश्चिमी यूरोप ने उसे अपनाया। सोवियत मॉडल में अपरिग्रह और समानता पर जोर था जबकि अमेरिकी मॉडल में अपरिग्रह और आर्थिक संवृद्धि के फल के समान वितरण के बदले उपभोग को प्रोत्साहित किया गया जिससे वस्तुओं की मांग बढ़े। उपभोग को बढ़ाने के लिए बढ़िया उत्पाद बाजार में आए और विज्ञापन द्वारा उपभोक्ताओं को आकर्षित किया गया। इस सन्दर्भ में वेल्डर का कहना है कि विश्व भर में उपभोक्तावाद की तानाशाही स्थापित हो चुकी है जिसका उद्देश्य कुल मिलाकर नैतिक दायित्वों से छुटकारा पाना है।¹ अमेरिकी राष्ट्रपति ने कहा कि कि विश्व भर में महंगाई की वजह है कि विकासशील देशों में बढ़ती उपभोक्तावादी संस्कृति। उपभोग में आए असन्तुलन की प्रवृत्ति यदि आंकड़ों पर नजर डाली जाये तो चाहे प्राकृतिक संसाधनों के सर्वाधिक दोहन की बात हो या पारिस्थितिकीय तंत्र को प्रदूषण से नुकसान पहुंचाने की, विकसित देश ही सबसे आगे हैं।

आज संस्कृति का स्वरूप स्थानीय न होकर भूमंडलीय हो गया है। संस्कृति एक मानसिक अवधारणा है जो किसी समाज के जीवन चर्या सम्बन्धी विश्वासों के समूह से बनती है। समाज विश्वासों व आस्थाओं को धीरे धीरे अभ्यास व अनुभव से अर्जित करता है। समाज की वर्गीय संरचना भी संस्कृति को प्रभावित करती है। उच्चवर्गीय समाज अपनी संस्कृति को तमाम समाज की संस्कृति की तरह प्रचारित करते हैं। भूमंडलीकरण के कारण बाजारवाद पनपा और बाजारवाद से उपभोगवाद² बहुराष्ट्रीय कम्पनियों ने उत्पाद को खपाने के लिए ऐसी परिस्थितियां निर्मित की जिससे उपभोक्ता वर्ग न चाहते हुए भी उपभोक्तावादी संस्कृति की तरफ आकर्षित होते चले गये।

उपभोक्तावाद व मीडिया से उत्पन्न चकाचौंध एक आयातित जीवन पद्धति अपने चरम पर है। साहित्य का वर्तमान परिदृश्य बाज़ार केन्द्रित दृष्टि पर आधारित है जो इसका विरोध करते हैं, वह हाशिये पर चले गये हैं। वैश्वीकरण ने मीडिया व बाज़ार के साथ मिलकर साहित्य को उत्पाद के रूप में प्रयुक्त किया। अर्थ-व्यवस्थाओं के वैश्वीकरण के साथ ही यौन हमलों में भी बढ़ोतरी हो रही है, यही एक बिन्दु है जहां से वैचारिक असहिष्णुता व हिंसा का जन्म होता है। बाज़ारवाद ने साहित्य को भी बाज़ार वस्तु बना दिया है। बाज़ार के दबाव में साहित्यिक हस्तियां अपनी पुस्तकों को बाज़ार में स्थान दिलाने हेतु व पाठकों के अधिक खरीददार संगठित करने में जुटे हुए हैं। बाज़ार का दबाव लेखक को बाज़ार के सुर में सुर मिलाने, नुस्खों व फार्मूलों का अनुसरण करने इच्छाओं को सन्तुष्ट करने, दक्षता को नकारने, उसे दोहराते जाने का न्यौता देता है।³ बाज़ारीकरण के रहते साहित्य पर पड़ने वाला खतरा स्वयं मानवीयता पर पड़ने वाला खतरा है। प्रतिबद्ध साहित्यकार इस कलुषित वातावरण में आशा की नई किरण ला रहा है। साहित्य ने अपना प्रतिरोध जाहिर कर चेतावनी दी है कि बाज़ारीकरण की माया ने मानवीयता को खतरे में डाल दिया है। मुकेश कुमार जी ने लिखा है कि उपभोक्तावाद समाज को भाप की तरह खड़ा कर झुंड में बदल देता है। झुंड में न समाज होता है और न वैयक्तिकता के लिए कोई जगह होती है। व्यक्ति के विलापीकरण की वजह से ही संस्कृति उपेक्षित है और साहित्य लापता है।⁴

निर्बाध पूंजी के दौर में आमजन की पीड़ा किसी के गले नहीं उतर रही। बहुराष्ट्रीय निगमों ने आम आदमी को भी अपना सशक्त उपभोक्ता तैयार कर लिया है। वैश्वीकरण प्रभुत्व कायम करने की गतिविधियों से जुड़ा हुआ है। वैश्वीकरण ने अस्मिताओं व बहुलता विमर्श के उभार के नाम पर संकीर्णताओं व अतिवादी दृष्टिकोणों को उभारा है। बाज़ारवाद अपने साथ सिर्फ वस्तुओं का भण्डार ही नहीं लाता बल्कि उपभोक्तावाद भी लाता है। इसी कारण उपभोग की पाश्चात्य संस्कृति भारत की संस्कृति पर हावी हो रही है। मनुष्य को उसकी संस्कृति से अलग करना वस्तुतः मनुष्य को मनुष्य से अलग करना है। किसी समाज में व्यक्तियों का जो सांझा अन्तःसंसार है, जो बहुमूल्य और सुन्दर है। उससे उन्हें खींचकर कृत्रिम संस्कृति के एक संकीर्ण उथले संसार में ले जाने की तरह-तरह की कोशिशें हो रही हैं। इन कोशिशों का लक्ष्य जनता की सांझा और आत्मविशिष्ट संस्कृति को मिटाकर उस पर ऐसी सार्वभौम और भावशून्य यांत्रिक संस्कृति लादना है जिसकी अपनी कोई बहुलता, परम्परा और पुनर्चनात्मकता नहीं है। इसके कारण ऐसी संस्कृति पनप रही है जिसका मुख्य आधार उपभोग है।⁵

उपभोक्तावाद परिवार की सामन्ती संरचना पर मर्मांतक प्रहार कर रहा है। उपभोग के उत्कर्ष का संस्पर्श करते हुए उन्हें बुढ़ापा कभी न खत्म होने वाले दुःस्वप्न की तरह लगता है, अपनी सन्तान के प्रति उनका उत्तरदायित्व नहीं है। भूमण्डलीकरण की तरह उपभोक्तावाद भी एक यथार्थ है। उपभोक्तावादी संस्कृति ने हमारे समाज, उसके विचार, विश्वास, प्रतीक और अवधारणाओं को न केवल हाइजैक कर लिया बल्कि समाज सेवा की आड़ में देशी-विदेशी अनुदानों के बल पर एक ऐसी संस्कृति पनप रही है जिसने हमारे तमाम मानवीय, सामाजिक और सांस्कृतिक मूल्यों को नष्ट कर दिया।⁶

उदासीकरण के कारण हम आज वस्तुओं के अंध आकर्षण की ओर जा रहे हैं। देश व विदेश में उदासीकरण के पश्चात् उभरने वाली प्रवृत्तियां कृषि संकट, मजदूरों की विपन्नता, अलगाववाद के उभार, उपभोक्तावाद के पसरते स्वरूप आदि विषयों को साहित्य उठाता है।



साहित्यकार का मन व्याकुल हो उठता है तो उसके मन का संघर्ष उसे कई पहलुओं पर सोचने विचारने के लिए मजबूर कर रहा है जिससे नव्यतम विचारों की सृष्टि होती है। उन विचारों के जरिये मनुष्य को विवेकशील बनाकर क्रान्ति का आह्वान करना साहित्यकार का मुख्य ध्येय बन जाता है। रचनाकारों के इसी प्रयास को मैनेजर पाण्डेय जी के शब्दों को प्रकट किया जा सकता है—'किसी रचनाकार की चिन्ता का विषय जीवन का यथार्थ है और जीवन का यह यथार्थ बहुयायामी होता है। रचनाकार सामाजिक यथार्थ और सामाजिक सम्बन्धों की समग्रता का चित्रण करते समय मानव सम्बन्ध के वैयक्तिक, सामाजिक और मानवीय पक्षों का उद्घाटन करता है।'⁷ आज भारत के सामने राष्ट्रीय संस्कृति का संकट मंडरा रहा है। सांस्कृतिक राष्ट्रवाद और भूमण्डलीकरण की संस्कृति भारत की राष्ट्रीय संस्कृति पर कुटाराघात कर रही है। निरंजन सहाय जी ने लिखा है कि 'असल में सच्चे साहित्य के उद्देश्य का प्रस्थान बिन्दु होता है—सहमति का विवेक और असहमति का साहस। समाज की शोषण व्यवस्था के विरुद्ध सदैव सार्थक साहित्य हस्तक्षेप करता है।'⁸ साहित्य को जीवनोपयोगी सिद्ध करते हुए प्रफुल्ल कोलख्यान लिखते हैं कि 'साहित्य का सत्य सत्यान्वेषियों का सत्य न होकर भी उनके सत्य से अधिक जीवनोपयोगी, प्रामाणिक व मानवीय होता है।'⁹ साहित्यकार भविष्य का द्रष्टा होता है और यह भविष्य कल का यथार्थ है। साहित्यकार बाजारवाद की माया मोहिनी से बचते हुए लेखन का दायित्व निभाते हुए जनता को तैयार करने की चुनौती से लैस होकर सृजनशीलता का धर्म निभा रहे हैं। आज का उपन्यासकार हारती, टूटती व कराहती मानवता से अधिक चिन्तित है और अपने उपन्यासों के माध्यम से सामाजिक प्रतिबद्धता का परिचय दे रहा है।

आज के उपभोगवाद के दौर में व्यक्ति का मानस कैसे कमाने की हौड़ में है। उसके जीवन का एकमात्र लक्ष्य कैसे कमाना व उपभोग की वस्तु जुटाना रह गया है। रवीन्द्र वर्मा जी ने 'मैं अपनी झांसी नहीं दूंगा' उपन्यास में इस अवस्था का सटीक प्रतिपादन किया है—'फोर्ट में घूमता हर आदमी लखपति बनने के सपने देखता था। वह बम्बई स्वप्न की शुरुआत थी जो अब कभी नहीं मरेगा। फोर्ट की दीवारें गिर जायेंगी। पश्चिमी स्थापत्य की भीमकाय इमारतें बनती जायेंगी, भीड़ बढ़ेगी, लोग झोंपड़पट्टियों से खढ़बढ़ाकर फूटपाथों पर गिरेंगे—मगर वे हर रात दमकते साने का स्वप्न देखेंगे।'¹⁰ स्वयं प्रकाश द्वारा रचित 'ईधन' में स्निग्धा के पिता के लिए शेयर बाजार ही सब कुछ है। अपने पिता के सम्बन्ध में स्निग्धा की राय है कि 'टाइम्स ऑफ इण्डिया का शेयर बाजार वाला पन्ना उसके लिए संसार के सभी रिश्तों से ज्यादा दिलचस्प है। बेटी की जिन्दगी से भी ज्यादा।'¹¹ स्निग्धा के पिता ने पैसे की दौड़ में खूब पैसा कमाया और वे अपने परिवार की भावनाओं से दूर होते चले गये, वे कहते हैं कि 'आदमी के पैसा नहीं होता तो वह पैसे के पीछे पड़ जाता है—और पैसा कमाने के पीछे सब कुछ भूल जाता है बीवी बच्चे, घर परिवार, हंसना खेलना सब—यहां तक कि खुद को भी। अपनी एम्बीशन्स को भी। अपने सपनों को भी। जब इस तरह सब कुछ खोकर खूब पैसा कमा लिया जाता है तो समझ में नहीं आता कि इसका और पैसे बनाने के इलावा क्या उपयोग है।'¹² पैसे के कारण मानवीय रिश्तों में बदलाव रेखांकित हो रहा है।

व्यक्ति सिमट रहा है और वह अपना स्वार्थ ही साध रहा है। पैसे के कारण पारिवारिक सम्बन्धों में आई दरार को स्पष्ट किया गया है। ममता कालिया के 'दौड़' उपन्यास में पारिवारिक सम्बन्धों के बिखराव और नई पीढ़ी की सोच को विवेचित किया है। इस उपन्यास

का पात्र पवन उपभोक्तावादी संस्कृति को अपनाने में ही अपनी सफलता मानता है। विभिन्न बहुराष्ट्रीय कम्पनियों में काम करने के कारण उपभोक्तावादी संस्कृति का हिस्सा बन जाता है। उसे घर में बिताये पांच दिन युगों की भाति प्रतीत होने लगते हैं। तनावग्रस्त स्थिति में पवन मेडिटेशन कैम्प में भी भाग लेता है। राकेश भक्ति को कैपसूल मानकर बेचने की रीति मानते हैं तब पवन कहता है कि आप बचपन में शंकर का अद्वैतवाद समझाते थे। मेरे कुछ पल्ले नहीं पड़ता था। आपने जीवन में मुझे बहुत कन्फ्यूज़ किया है पर सरल मार्ग में एकदम सीधी सच्ची यथार्थवादी बातें हैं।¹³ इन बातों को सुनकर राकेश दंग रह जाता है। पवन के द्वारा अपनी शादी की तारीख तय करने की बात मां बाप को पता चलती है तब मां बाप दुखी होते हैं। पवन मां बाप के रिश्ते की अहमियत को भूल चुका है। शादी के बाद भीग दौड़ की जिन्दगी में पवन के पास मां के लिए वक्त नहीं। उपभोक्तावादी संस्कृति ने भाइचारे की भावना को लुप्त कर दिया है। युवा पीढ़ी में रिश्तों को धन से आंकने की प्रवृत्ति विकसित हो रही है। बाज़ारीकृत व्यवस्था में लाभ व नुकसान के आधार पर मनुष्य जीवन को परखता है। अपने ही घर में रहने पर रत्न मां को किराया देता है। सम्बन्धों की अमानवीयता का इससे बड़ा दृष्टान्त नहीं हो सकता। इसी मानसिकता के आधार पर रत्न मां को किशतों में पैसे देने को तैयार हो जाता है। यह उपभोक्तावादी मानसिकता का ही प्रतिरूप है। इसी उपन्यास के अन्य प्रसंग में सोनी का एकमात्र पुत्र उसके दाह संस्कार के लिए पहुंचने को तैयार नहीं। वह अपनी मां को फोन पर कहता है कि हम सब तो आज लुट गये ममा। मेरे आने तक डैडी को रखा नहीं जा सकता। आप ऐसा कीजिए, इस काम के लिए किसी को बेटा बनाकर दाह संस्कार करवाइए।¹⁴ मिसेज सोनी के निवेदन पर पड़ोसी भाइयों की सहायता से दाह संस्कार करवाया जाता है। इस घटना से द्रवित होकर सिन्हा साहब ने अपनी मौत की तैयारी शुरू कर ली और कहा कि 'भई मैंने तो एकादशी का गउदान भी जीतेजी कर लिया। पता नहीं अमित से यह सब करे या नहीं।'¹⁵ पुरानी पीढ़ी अपने आदर्शों पर अडिग बनी हुई है तथा नई पीढ़ी में आ रहा बदलाव पारिवारिक सम्बन्धों को ढीला कर रहा है एवम् नई पीढ़ी उपभोगी मानसिकता में तनाव से ग्रस्त होकर नया जीवन ढूँढ रही है। यह भारत की संस्कृति से दूर अपसंस्कृति का ही फ़ैलाव है। रवीन्द्र वर्मा जी ने 'निन्यानवे' उपन्यास में रामदयाल के बेटों की वास्तविकता का पर्दाफ़ाश किया है। उनका बेटा किन्ने अन्तर्राष्ट्रीय चित्रकार बन जाने पर मां बाप की भावनाओं पर ठेस पहुंचाता है। मां बाप अपने बेटे किन्ने को जब खुशी से पुकारते हैं तब वह 'दुसरे आदमी के साथ गेट तक गया फिर अकेला वापिस लौटा और अम्मां-बापू को छोटे से हाल में ले गया।'¹⁶ किन्ने का भाई बल्लो भाई के बर्ताव के बारे में सोचता है कि मगर कभी किन्ने अम्मां-बापू को अपनी कोठी के गैरेज में टिकायेगा-बल्लो ने ऐसी कल्पना भी नहीं की थी।¹⁷ रामदयाल का दूसरा बेटा हरि रुपये को करोड़ों में बदलने के लिए पुश्तैनी मकान भी बेच देना चाहता है। भूमण्डलीय समाज में रिश्ता, सम्बन्ध और मूल्य वगैरा धनाधारित हो जाते हैं। व्यापारिक दृष्टि से सम्बन्धों को आंका जाता है। मां बाप और पुश्तैनी घर को महत्व न देने वाली पीढ़ी पारिवारिक, सामाजिक व सांस्कृतिक मूल्यों को ध्वस्त कर रही है।

बाज़ारवाद ने स्त्री को सिर्फ बाज़ार की वस्तु बना दिया है। सौन्दर्य प्रतियोगिताओं और मीडिया का भरपूर सहयोग है। स्वयं प्रकाश द्वारा रचित 'ईधन' उपन्यास का रोहित अपनी तपस्वी को पार्टियों में ले जाना फ़ैशन मानता है। सिन्धा कहती है कि 'रोहित चाहता था कि मैं उसके साथ शाम को होटलों में, पार्टियों में जाऊं। सजधजकर। वहां देसरो को अपने रूप व



अंग्रेजी से प्रभावित करूँ, सिडफयूज करूँ, आकर्षित करूँ, बीधूँ। इसका फायदा रोहित को व उसके धन्धे को मिले।¹⁸पति के लिए पत्नी धन्धे को बेहतर बनाने के लिए मालिकों के सामने प्रस्तुत करने वाली वस्तु बन कर रह जाती है। ममता कालिया के 'दौड़' उपन्यास के पात्र पवन और स्टैला शादी को डील मानते हैं। पति व पत्नी के बीच इन्टरनेट पर ही सम्बन्ध कायम रहता है। पवन की मां रेखा कहती है कि 'तुम अभी शादी जैसे रिश्ते की गम्भीरता नहीं जानते। शादी और व्यापार अलग अलग चीजें हैं। सेटलाइट और इन्टरनेट से तुम्हारा दाम्पत्य चलेगा।'¹⁹ रेखा के कथनों से पवन और स्टैला पर कोई प्रभाव नहीं पड़ता। बाजारीकृत समाज में जीने वाला मनुष्य बाजार की भाषा ही समझता है।

उपभोक्तावाद पति पत्नी के रिश्ते को नये अर्थ में गढ़ रहा है। उच्च व मध्यम वर्ग में ही यह मानसिकता पनप रही है। सम्बन्धों के पारिवारिक व सामाजिक मूल्य निरर्थक हो रहे हैं। देश के सांस्कृतिक वातावरण में भोगवाद की छाया फैलती जा रही है। नगरों व महानगरों में यौन अराजकता की स्थिति पैदा हो रही है। भूमंडलीकरण के दौर में मानव शारीरिक सुख को ही महत्ता देता है। उपभोक्तावादी समाज में पति पत्नी के सम्बन्धों के मायने बदल रहे हैं। पति पत्नी दोनों अपनी सुख सुविधा को महत्त्व दे रहे हैं। शारीरिक सुख में भी पुरुष व नारी को हमेशा नयेपन का आग्रह रहता है। रवीन्द्र वर्मा जी ने 'दस बरस का भंवर' उपन्यास में किशोरी का पति पवन पराई स्त्रियों से सम्बन्ध रखता है। किशोरी के मन की भावना देखिए—'इस समय उसके मन में अपनी सहेली वर्षा की फोर्ड आइकॉन थी जो उसने किशोरी की तरह अपने पास जेन होने के बावजूद खरीदी थी। यह वर्षा का दूसरी ए सी गाड़ी थी। किशोरी के पास केवल एक थी जो पवन को बिटाए डायना, सुनयना या अंजली का पीछा करती रहती थी। इससे बुरा भाग्य किसी और का क्या होगा।'²⁰ इससे स्पष्ट होता है कि पति अपनी तरह से जीता है और पत्नी अपनी तरह से। यह उपभोक्तावादी संस्कृति का ही प्रतिफल है।

उपभोगी मानसिकता ने लोगों को अन्धा बना दिया है। उसकी चमक के सामने मानव जीवन की गरिमा ओझल हो गई है। नई पीढ़ी उपनिवेशी तत्वों द्वारा तय किये गये मार्ग पर दौड़ रही है। नवयुवक बाजार की चमक और विज्ञापन का चकाचौंध से बच नहीं पाते। अलका सरावगी जी के 'कलि कथा : वाया बाइपास' में इस अवस्थिति का प्रकाशन किया है कि 'कोई लड़की इसलिए जहर खा लेती है क्योंकि उसका बाप उसे माधुरी दीक्षित वाली घाघरा चोली लाकर नहीं देता और अपने इर्द गिर्द क्या हो रहा है, उसकी खबर है आपको। अभी मेरे दोस्त की पत्नी ने आत्महत्या कर ली क्योंकि अरुण उसे अपनी शादी का सालगिरह पर 'ताज बंगाल' नहीं ले गया था।'²¹ ऐय्याशी और विलासिता की सामग्रियां जुटाने में असफल होने पर जीवन को निरर्थक मानने वाली युवा पीढ़ी त्रासदी बनकर हमारे सामने उपस्थित है।

मां बाप बच्चों से युक्त घर को परिवार कहा जाता था लेकिन आजकल घर सिर्फ सोने की जगह बनकर रह गया है। ऐसे में परिवार सम्बन्धी कोई रिश्ता या मूल्य शेष नहीं रह जाता। पारिवारिक और सामाजिक बोध के स्थान पर व्यक्ति केन्द्रित विचार को प्रश्रय मिलने के कारण व्यक्ति का सुख ही सर्वोपरि बन गया है। इस सुख में बाधा पहुंचाने वाली हर चीज को तिरस्कृत किया जा रहा है। ऐसी स्थिति में मां बाप को अपना बच्चा भी आंख में खटकने लगता है। आज फैशन और दोहरी आमदनी के मोह से स्त्री बच्चों को जन्म देना नहीं चाहती। ममता कालिया के 'दौड़' उपन्यास की राजुल अभिषेक के कहने पर बच्चे के लिए मान तो

जाती है परन्तु बच्चे की देखभाल को झंझट समझती है। राजुल कहती है कि 'मैंने तुम्हें कहा था कि मैं अभी बच्चा नहीं चाहती, तुम को ही बच्चे की पड़ी थी।'²² पैसों को बच्चों से ज्यादा अहमियत देना स्त्रीत्व की सोच पर भारी पड़ गया है। राजुल की राय है कि 'मेरी सब कलीग्स कहती थी कि राजुल शादी करके अपनी आजादी चैपट करोगी। आजकल जमाना है कि डबल इनकम नो किड्स' मैं सेन्टिमैन्ट्स के चक्कर में पड़ गई।'²³ स्वयं प्रकाश द्वारा रचित 'ईधन' की स्निग्धा भी बच्चे को झंझट के रूप में देखती है। स्निग्धा सोचती है कि 'मां बनना कभी मेरी अभिलाषा नहीं रही। गर्भवती स्त्रियां मुझे बड़ी फूहड़ और कुरूप लगती थी। डिसफिगर्ड ! एबनॉर्मल! विकर्षक! उन्हें देखकर पीछे हट जाने की इच्छा होती थी। रास्ता छोड़ कर खड़े हो जाने की इच्छा होती—सच तो यह है कि मुझे बच्चों से भयंकर एलर्जी है। उन्हें देखकर मुझे घबराहट होने लगती है।'²⁴ इसी उपन्यास का रोहित भी कहता है कि 'जब मेरे पास लेपटॉप नहीं था न मोबाइल तब बहुत परेशानी होती थी। बेटे इसी बीच गोदी में लटूमता रहता थां लगभग हर रोज वह मुझसे डांट मार खा जाता था।'²⁵ अणु परिवार के बढ़ावे के साथ ही परिवार सम्बन्धी कल्पना भी बदलती जा रही है।

आज की भाग दौड़ वाली दुनिया में तनाव के माहौल का सृष्टि हो रही है। बहुराष्ट्रीय कम्पनियों में काम करने वाले तनावग्रस्त आभासित होते हैं। स्वयं प्रकाश द्वारा रचित 'ईधन' उपन्यास का रोहित बहुराष्ट्रीय कम्पनियों के कर्मचारियों के विषय में कहता है कि उनमें से हरेक बेहद स्मार्ट, वाक्पटु और कुशल हिसाबी था लेकिन वे हर समय तनाव में रहते थे। उन से कहा भी यही जाता था कि तुम्हें हर समय तनाव में रहना चाहिए। आलवेज ऑन योर टोज'। उन्हें दिये गये टारगेट उनकी नींद हराम किये रहते।'²⁶ व्यक्ति का तनाव ही घर के सभी सदस्यों पर हावी हो जाता है। ममता कालिया के 'दौड़' उपन्यास की मिसेज गुप्ता की राय है कि आज बच्चों में वायरल फिवर की तरह 'विदेश वायरस' बहुत फैला है जिसके कारण मां बाप को छोड़कर उनके बच्चे विदेश रवाना होते हैं—ये सब कामयाब सन्तानों के मां बाप थे। हर एक के चेहरे पर भय व आशंका के साये थे। बच्चों की सफलता इनके जीवन में सन्नाटा बुन रही थी।'²⁷ सामाजिक व्यवस्था को सुदृढ़ बनाने वाली मानवीय रिश्तों को तोड़ने वाले नये आचरण भारतीय पारिवारिक सामाजिक मूल्यों के लिए खतरा बन गये हैं।

सामाजिकता के मार्ग में साम्प्रदायिकता बहुत बड़ी चुनौती बनकर उभरा है। उपन्यासों के माध्यम से साम्प्रदायिक विद्वेष के विरुद्ध आवाज बुलन्द की जा रही है। भारत की एकता को तहस नहस करने वाली साम्प्रदायिकता मनुष्य-मनुष्य के बीच रिश्तों में दरार डाल रही है। रवीन्द्र वर्मा जी ने 'निन्यानवे' उपन्यास में साम्प्रदायिक दंगों के समयबल्लो की पत्नी उलफत का भूत को देखना उसके मन के आतंक को दर्शाता है—'उन बेहतरी और बहबूदी और सलामती का कोई सपना अब उसकी आंखों में नहीं फड़फड़ाता था। उसका पूरा व्यक्तित्व एक घुटी हुई चीख बनता जा रहा थां यह बहुत त्रासदायक, बहुत विस्फोटक था। मैं नहीं समझ जाता था कि यह सब क्यों हो रहा है।'²⁸ साम्प्रदायिकता समन्वयवादी सामाजिक व्यवस्था को तोड़ देती है। मनुष्य या अपने धर्म से जुड़े रहने या अपने घर में सिमटे रहने को विवश हो जाते हैं। अलका सरावगी जी ने—कलि—कथा : वाया बाइ पास' साम्प्रदायिक दंगों का दृश्य चित्रित किया है कि—'सारा शहर लाशों से भरा पड़ा है। क्या हिन्दू, क्या मुसलमान सब पर शैतान सवार हो गया है।'²⁹ रवीन्द्र वर्मा जी ने 'दस बरस का भंवर' उपन्यास में आतंकी अवस्था का ब्यौरा दिया है कि—'मकानों में अंधेरा था। गली में बिजली के खम्भे चुपचाप अपना

सा मुंह लिये खड़े थे, रोशनी नहीं थी।³⁰ आतंक से लोगों का भयग्रस्त होना स्वयं में अमानवीय कृत्य है। प्रियंवद के 'वे वहां कैद हैं' उपन्यास की कादम्बरी आतंक से भयभीत है, वह दादू से पूदती है कि—'चारों ओर खून और लोहा बिलकुल देवताओं की तरह पूजा जाने लगा है। कैसी दुनिया हो गई है यह। तुम लोगों ने क्या ऐसी दुनिया रचनी चाही थी।'³¹ कादम्बरी की निराशा का उतर दादू इस प्रकार देते हैं कि आशा की किरण हमने नहीं छोड़नी है। धर्मान्धता का दावानल इतना सुलगता जा रहा है जिसके कारण मानवीय चेतना लुप्त हो रही है।

उपभोगवादी संस्कृति के कारण आज की पीढ़ी मूल्यहीनता का शिकार हो रही है। स्त्री को उपभोग के रूप में ग्रहण किया जा रहा है। रवीन्द्र वर्मा जी ने 'दस बरस का भंवर' उपन्यास में रतन को युवा पीढ़ी के प्रतीक रूप में दर्शाया है जोकि शिजोफ्रेनिया से ग्रस्त है। उसके बारे में डॉ पाण्डेय की राय है कि— 'हम जिस समय में हम जी रहे हैं, उसमें शिजोफ्रेनिया का अन्देसा और भी ज्यादा है। यह ऐसा समय था जिसमें देश के एक तिहाई लोग भूखे थे और एक चौथाई पिज़्जा खा रहे थे—बाकी लोग पिज़्जा की प्रदर्शन खिड़की में आंखें गड़ाए खड़े थे। सौ में से एक आदमी इस बीमारी का शिकार था—हमारे देश में एक करोड़ शिजोफ्रेनिक्स का एक शहर बस सकता है।'³² यह मानसिकता रत्न में आक्रामक मनोवृत्ति को जन्म देती है। रत्न के जीवन की त्रासदी यह है कि वह अपनी जिन्दगी में जल्दी अमीर बनना चाहता है। रत्न के शब्दों में—'मैंने अम्बानी या आमिर होने की कोशिश की और रत्न भी न हो सका।'³³ इसी कारण डॉ ने बताया कि रत्न का भोगासक्त होना एक पागलपन है। इस पागलपन को रवीन्द्र वर्मा जी ने शिजोफ्रेनिया से अभिहित किया है जोकि भूमण्डलीकरण की देन है।

कलाकार समाज की अनुभूतियों को परखते हैं, उन्हें अपने सृजन के माध्यम से बहुआयामी अर्थ प्रदान करते हैं। साहित्यकार की प्रतिबद्धता समाज से होती है इसीलिए साहित्यकार जनविरोधी नीतियों का विरोध करते हैं। भूमण्डलीकरण की एकल उपभोक्तावादी संस्कृति को प्रश्रय देने वाले तत्वों के खिलाफ रचनाकार निरन्तर प्रहार करते रहे हैं। मनुष्य के रागात्मक भाव क्षीण हो जाने के कारण कला, साहित्य, संस्कृति खतरे में पड़ गए हैं। प्रियंवद के 'वे वहां कैद हैं' उपन्यास का अविनाश सृजनात्मकता के प्रतीक रूप में उभरता है। अविनाश का मित्र चिन्मय रचनाकारों की हैसियत को नकारता है और वह कहता है कि—'प्लेटो ठीक कहता था कि राज्य के लेखकों, कवियों को धक्के देकर निकाल देना चाहिए। तुम लोग सचमुच समस्या की जड़ हो। तुम महान् लोग जो सारी इन्सानियत के ठेकेदार बनते हो, आज कलाकार भी भूमण्डलीकरण का हिस्सा बनते जा रहे हैं।'³⁴ स्वयं प्रकाश जी ने 'ईधन' उपन्यास में व्यक्त किया है कि—'चित्रकार घोड़े की नंगी पीठ पर नंगी अभिनेत्री का चित्र बना रहे थे और पत्रकार अपने लिए आवासीय प्लाटों की व्यवस्था में जुटे हुए थे।'³⁵ रवीन्द्र वर्मा जी ने 'निन्यानवे' उपन्यास में भी किन्ने के माध्यम से कलाकार की प्रतिबद्धता पर सवाल उठाया गया है कि—'जब कलाकार का भूमण्डलीकरण होता है तो क्या वह देहरी—द्वार घर बार और अपने परिवार सबसे उपर उठ जाता है।'³⁶ मंजूर एहतेशाम के 'सूखा बरगद' उपन्यास में एक राइटर के मौत की सूचना दी गई है जोकि जिन्दगी भर हिन्दू मुस्लिम एकता पर कहानियां लिखता रहा तथा बाद में जमशेदपुर दंगों में मारा जाता है—'वह जो एक राइटर था— हिन्दू मुसलमान भाई—भाई की थीम पर उर्दू में जिन्दगी भर कहानियां लिखता रहा, उसे

भी निपटा दिया! अखबार में उसकी छोटी सी तस्वीर छपी है।³⁷ समाज की प्रतिक्रिया को जानते हुए भी प्रतिबद्ध साहित्यकार समाज की अमानवीयता पर प्रहार करता रहता है।

भारत की राष्ट्रीय संस्कृति जिन मूल्यों पर विकसित हुई है, उन मूल्यों का अब अवमूल्यन हो रहा है। मानवता पर केन्द्रित सांस्कृतिक मूल्य संकट की स्थिति में हैं। भाइचारे पर केन्द्रित पारिवारिक सम्बन्धों में उपभोगवादी मूल्यों का अतिक्रमण हो रहा है। परम्परागत मानव मूल्यों को त्याग कर जनता विलासिता पूर्ण जीवन यापित कर रही है। मानवीय मूल्यों पर निर्मित राष्ट्रीय संस्कृति का तिरस्कार हो रहा है। मानवीय सम्बन्धों की महिमा गौण होकर पाशिवक मनोवृत्ति विकसित हो रही है। स्त्री पुरुष का सम्बन्ध भोग तक सीमित हो गया है। उपभोक्तावादी संस्कृति के कारण नई पीढ़ी में रिश्ता, सम्बन्ध और मूल्य का धनाधारित होना, अणु परिवार को बढ़ावा मिलना, धर्मान्धता के दावानल का सुलगना, पारिवारिक सम्बन्धों में बिखराव, पति पत्नी के सम्बन्धों के मायने बदलना, सामाजिक व सांस्कृतिक मूल्यों का ध्वस्त होना, भाइचारे की भावना का लुप्त होना आदि दुष्प्रवृत्तियों को समकालीन उपन्यासकारों यथा रवीन्द्र वर्मा, स्वयं प्रकाश, ममता कालिया, अलका सरावगी, प्रियंवद, मंजूर एहतेशाम आदि ने साहित्यिक विचारधारा का विश्लेषण किया है। सांस्कृतिक मूल्यों के संकट के प्रतिरोध में मानवीय सम्बन्धों को प्रश्रय देकर सामाजिक एकता की मांग की है तथा पारिवारिक सम्बन्धों की अहमियत को पुरानी पीढ़ी की आंखों से परखने का प्रयास किया है जोकि आज के समय की मांग है।

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- 19 ममता कालिया, 'दौड़', पृ. 57।
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తాలాంకనందినీ పరిణయం – విజయ విలాసం అనుకరణలు

తన్నీరు నాయబ్ రసూల్

అధ్యాపకులు, ప్రభుత్వ డిగ్రీ కళాశాల, పాడేరు.

తెలుగు సాహిత్యంలో ప్రబంధ యుగం ఒక విశిష్ట స్థానాన్ని పొందింది. కేవల అనువాద కావ్యాలను కాదని ఒక స్వతంత్ర తెలుగు ప్రక్రియ పాడుకొంది ఈ యుగంలోనే. ఆ స్వతంత్ర ప్రక్రియ ప్రబంధం. ఈ ప్రబంధ రచన మనుచరిత్ర నుండి మొదలైంది. తెలుగు సాహిత్యాభిమానులకు ఈ ప్రక్రియ ఎంత ఇష్టమైందో దాని నుదీర్చతను బట్టి ఊహించవచ్చు. ప్రబంధ యుగంలో వచ్చిన ప్రబంధాలను చదివి ఆ ప్రభావంతో అలాంటి కావ్యాలను రాయడానికి సిద్ధపడిన తెలుగు కవులు చాలా మంది ఉన్నారు. అలా ప్రేరణగా నిలిచిన కావ్యాల్లో వసుచరిత్ర ఒకటి. రామరాజభూషణుడు రాసిన ఈ ప్రబంధ ప్రభావంతో అనేక ప్రబంధాలు వెలువడ్డాయి. వాటిని పిల్ల వసుచరిత్రలుగా పిలిచారు.

రాయల కాలంలో ప్రబంధాలు వెలిసినట్లుగానే తంజావూరు తెలుగు రాజుల కాలంలో కూడా ప్రబంధాలు విరివిగా ఉత్పన్నమైనాయి. అలాంటి ప్రబంధాలలో పేరెన్నికగన్న ప్రబంధం విజయవిలాసం. దీనిని వెలయించినవాడు చేమకూర వేంకటకవి. మూడు అశ్వాసాల ఈ ప్రబంధానికి మూలమైన కథ భారతంలో ఉంది. ఈ కావ్యం రఘునాథనాయకునికి అంకితం ఇవ్వబడింది. అంకితం పుచ్చుకున్న రఘునాథనాయకుని చేతనే 'ప్రతి పద్యమునందుఁజుమత్స్యతి గలుగం జెప్పనేర్తు వెల్లడఁబెఱుకొ'(పి.వి. 1-150) అని పొగిడించుకొన్న చేమకూర వేంకటకవి 'ఏగతి రలియించిరేని సమకాలము వారలు మెచ్చరే కదా' (పి.వి. 1-210) అని బాధ పడినాడు. తనతోపాటు రఘునాథ నాయకుని ఆస్థానంలోని మిగతా కవులు మాతృర్యంతో తన ప్రబంధాన్ని మెచ్చకపోతేనేం? తదనంతర కవులు విజయ విలాస కావ్యాన్ని, అందులోని పద్యాలను, సన్నివేశాలను అనుకరించి ప్రబంధ నిర్మాణం చేశారు. అలా అనుకరించిన కవి ఆసూరి మఠింగంటి వేంకట నరసింహాచార్యులు. ఇతడు రాసిన ఆరాశ్వాసాల ప్రబంధం 'తాలాంకనందినీ పరిణయం'. శశీరేఖ, అభిమన్యుల వివాహానికి సంబంధించినది. ఇది మిశ్రమ కథ. కథ కల్పితం. పాత్రలు ప్రసిద్ధం. ప్రసిద్ధ పాత్రలు, ప్రసిద్ధ కథైన విజయ విలాస ప్రబంధాన్ని చాలా సందర్భాలలో, సంఘటనల్లో, కథానిర్వహణలో, వర్ణనల్లో, చమత్కారాలలో విజయవిలాస కావ్యాన్ని అనుకరించాడు. కొన్నిచోట్ల మక్కికి మక్కి దించాడు. తన తాలాంకనందినీ పరిణయం ప్రబంధాన్ని పిల్ల విజయవిలాసంగా తీర్చిదిద్దడానికి కవి శైలి తాపత్రయపడినట్లు కన్పిస్తుంది. అనుకరణలు ఈ కింద వివరించడం జరిగింది.

ప్రథమాశ్వాసంలో విజయుడు బ్రాహ్మణుడి గోవును కాపాడటంకోసం ధర్మరాజు పడకమందిరంలోకి వెళ్ళడం, తత్ఫలితంగా తీర్థయాత్రలు చేయాలనుకోవడం తీర్థయాత్రలు చేసేటప్పుడు ఉలూచి, చిత్రాంగదలను వివాహ మాడటం, తాను దేనికోసం తీర్థయాత్రలు చేస్తున్నాడో ఆ కోరికను నెరవేర్చుకోవడం, తత్ఫలితమైన అభిమన్యుని జన్మకి కారణభూతాలుగా కవి చూపించాడు. ఇదంతా విజయవిలాసకావ్యమే. మూదాశ్వాసాల విజయవిలాసకావ్యాన్ని సుమారు 83 పద్య గద్యాలలో రాశాడు. కథతోపాటు కథాకథనాన్ని, పద్యశైలిని, శైలినేకాకుండా భావం చెడకుండా పద్యాలను కూడా అనుకరించాడు.

కేవలం ప్రథమాశ్వాసంలోనే కాకుండా కథాకథనాన్ని, సంఘటలను, పద్యాలను సందర్భోచితంగా అనుకరించినట్లు తెలుస్తుంది. ప్రథమాశ్వాసంలో ఇంద్రప్రస్థవర్ణన దగ్గర నుండి అభిమన్యుడు పుట్టడం వరకు విజయవిలాసం కావ్యాన్ని సంక్షిప్తంగా రాసినట్లు కనిపిస్తుంది. చేమకూర వేంకట కవి రాసిన "అతని నుతింపశక్యమే! జయంతుని తమ్ముడు సోయగమ్మునన్" (పి.వి.1-93) అనే పద్యాన్ని తాలాంకనందినీపరిణయకర్త-

“వేయాలకింపుమాటలేల
 వేయేల వచింప పాండవేయనకీనయే



నాయజుడుం గాయజుడున్

నాయజుడుం జతరరూప వరభుజబలిమిన్ (తా.ప.1-171)

అర్జునుడు విజయవిలాసంలో సోయగంలో జయంతుడు. కృపలో కృష్ణుని పోలినవాడు. శివుడిని ఎదిరించిన వీరుడని వేంకటకవి చెప్పగా అదే భావాన్ని తాలాంకనందినీపరిణయకర్త పై పద్యంలో ఇమిడ్చాడు. ఈ పద్యంలో అర్జునుడు నేర్పరితనంలో బ్రహ్మలాంటి వాడు. రూపంలో ముగ్ధుడు. భుజబలంలో నాయజుడు అంటే అంజనేయుడంతటివాడని వేంకటకవి పద్యాన్ని అనుకరించాడు.

భూప్రదక్షిణానికి వెళ్ళడానికి కారణమైన సన్నివేశాన్ని చేమకూర వేంకటకవి “ఒక భూమీదివిజుండు చోరహృదేనూత్రంసుండైవేడికొం” (పి.వి.1-108) అనే పద్యంలో చెప్పాడు. తాలాంకనందినీపరిణయకర్త ఈ సంఘటనకోసం సుమారు 12 పద్యాలను రాశాడు. “దైవ వశమున నొక్క భూదేవమౌళి” (తా.ప.1-179) అని మొదలు పెట్టి, తలచు సుభద్రపైక గలక తమ్మున ధర్మకుండెన్ని ధర్మముల్ (తా.ప.1-190) అనే పద్యం వరకు సుద్ధీర్ఘంగా రాశాడు.

చేమకూర వేంకటకవి అర్జునుడు తీర్థయాత్రలకు బయలుదేరి గంగానదిని దర్శించాడని చెప్పే, తాలాంకనందినీపరిణయకర్తకూడా అర్జునుడు గంగనదిని దర్శించాడని అదికూడా కాశీనగరంలోని గంగనదిని దర్శించాడని చెప్పాడు.

చేమకూర వేంకట కవి -

“సునాసీన నూనుండు నూచెన్నిరుజ్జు

.....

గ నేత్రోత్పవ త్రీని, గంగా భవానిన్” (పి.వి.1-112) అని పద్యాన్ని రాస్తే తాలాంకనందినీపరిణయకర్త -

“అటుపురి వెలువడి గంగా

తటిన్ రణగత్తరంగతట సంగటనా

రృటినిం గాశీ నగరని

కటింగని నిటలతట విఘటితాంజలుడై” (తా.ప.1-191) అనే పద్యాన్ని రాసి వేంకటకవిని అనుసరించాడు.

అర్జునుని చూసిన ఉలూచి అతని దానగుణాన్ని, సౌమ్యవిధానాన్ని మెచ్చుకొంటూ -

“అదరహాన చంద్రికలయందమునాపులమీదఁజిల్లున

త్యాదరశీత.....”-(పి.వి.1-133) అంటూ చేమకూర వేంకటకవి వర్ణిస్తే

తాలాంకనందినీపరిణయకర్త ఎత్తుగడ చేమకూరవారిలాగే ఎత్తుకొని అర్జునుణ్ణి చూసిన ఉలూచి ఇలా అనుకొందని చెప్పాడు. -

“అ దరహాసమురిపెమా సొగసారుచి యావిలాస మా

హ్లాదముగొల్వంగా గని యయారె వయారమిటుంటమిటుండవల్లెయం

చాదరలీల మెచ్చుచు.....”-(తా.ప.1-193) అని వేంకటకవిని అనుసరించాడు.

విజయవిలాసంలోని ఉలూచికి చూడగా, చూడగా ఆహ్లాదం గొల్పితే, ఇందులో అర్జునుని అందాన్ని చూసినవెంటనే ఆహ్లాదం కల్పించటం అందుకే వెంటనే అతణ్ణి భోగపతికి తీసుపోయిందని తాలాంకనందినీపరిణయకర్త పేర్కొన్నాడు. ఎత్తుగడలోనేకాక ఉలూచి అర్జునుణ్ణి తీసుకెళ్ళిన కారణాన్ని కూడా అనుకరించాడు.

ఉలూచితో సుఖించి. కుమారుడు పుట్టిన తరువాత తిరిగి పరివారం వద్దకు వచ్చేటప్పుడు అర్జునుడు ఉలూచితో -

“కామినిఁజూచి రమ్ముగజగామిని యిక్కడ నొక్కనాఁడిఁకం

దమునమైనక్కడ హితవ్రతి తైర్తికకోటియాత్యలో



నేమని యెంచునో యిప్పుడ యేఁగవలెన్, దరువాత నీసుత్ర

గ్రామణి నీవువచ్చెదరు గాక నియూడడిలంగఁబత్తునన్”-(ఏ.వి.1-178)

అని పలుకుతాడు. ఈ పద్యానికి, భావానికి, సమానమైన పద్యాన్ని ఉలాచికి వీడ్కొలు పలికి వెళ్ళే అర్జునుడిద్వారా తాలాంకనందినీపరిణయకర్త చెప్పిస్తాడు.

“నీరజపత్రనేత్రి విను నీవును నీ సుతుఁడేను తీర్థయా

త్రారతి దీర్ఘపిమ్మట పురమ్మునకుం జనుదెమ్ముమత్పరీ

వారములాత్మనెంతవలవంతల జెందిరొ! పోయివత్తునం

చారసికుడు బల్క సతియట్లనే జేర్చెను జాహ్నవీతటిన్”-(తా.ప.1-197)

చేమకూరవారు కామిని అని ప్రయోగిస్తే తాలాంకనందినీపరిణయకర్త నీరజపత్రనేత్రి అని ప్రయోగించాడు. తాలాంకనందినీపరిణయకర్త ముందు పురానికి రమ్మనిచెప్పి ఆ తరువాత తనపరివారం తనగురించి ఎదురుచూస్తుంటారని ముందు తన భార్యాపిల్లల గురించి అలోచించేవాడిగా చిత్రించాడు. వేంకటకవి అర్జునుడికి అదౌక విసోదంమాత్రమే. తన లక్ష్మ్యం చేరు. కథను త్వరత్వరగా పూర్తిచేసి వేరే కథాఘట్టంలోకి వెళ్ళాలన్న ఆత్రుత తాలాంకనందినీపరిణయంలో కనిపిస్తుంది. ఈ పద్యంలోనే ఉలాచి అర్జునుణ్ణి గంగానది తీరంలో పదిలేస్తుంది.

చేమకూర వేంకటకవి విజయవిలాసం ప్రబంధం. తాలాంకనందినీపరిణయకర్తకు విజయవిలాసం తన కావ్యంలో ఒకభాగం. విజయవిలాసంలో ఉలాచి దగ్గరనుండి వచ్చిన అర్జునుడు ఆమెతో గడిపిన మధురానుభూతులను తన పురోహితుడు విశారదుడికి చాలా సేపుచెప్పాడు. తాలాంకనందినీపరిణయకర్త వెంటనే తీర్థయాత్రలు చేయించాడు. తీర్థయాత్రల్లో భాగంగా అర్జునుడు హిమాలయపర్వతాలకు వెళ్ళే తన స్నేహితులతో ఆ పర్వత ప్రభావాన్నిగూర్చి -

“పదియాఱువన్నెగుబ్బలి రావకూఁతురు

పట్టంపు రాణిగాఁ బరఁగు జాణ

పతియర్థ దేహంబు సతీయంట నిజముగాఁ

బ్రబలు కన్మియఁగన్న భాగ్యశాలి

ముజ్జగమ్ముఁ బనిత్రముగఁ జేయు తీర్థమ్ముఁ

గౌనసాగఁ జేసిన యనఘమూర్తి

.....”-(ఏ.వి.1-192) అనే సీసపద్యంలో విపులంగా వర్ణిస్తాడు. పై పద్యాన్ని

అనుకరిస్తూ తాలాంకనందినీపరిణయకర్తకూడా కింది పద్యాన్ని రాశాడు.

“బంగరు కొండ పట్టి తన పట్టపు రాణిగ మేలుమేటి య

ర్థాంగము భర్తనంటిన మహాసతి నిన్గను భాగ్యశాలియు

త్తుంగ విప్రహారమున దొర్లని బిడ్డను గన్న తండ్రి చూ

డంగడు మానికంబుల కొటారము శీతనగంబు గాంచెయిన్”-(తా.ప.1-199) అంటూ ఉత్పలమాలలో భావం

చెడకుండా ఇరికించాడు.

హిమలయాలను చూసిన తరువాత అర్జునుడు ఉత్తరభారతం నుండి దక్షిణ భారతంలోని ధనుష్కోటి వరకు వెళ్ళాడని పదమూడవ నెలకు మలయధ్విజుని నగరాన్ని సమీపించాడని చెప్పడానికి చేమకూర వేంకటకవి దీర్ఘ గద్యాన్ని వాడాడు. తాలాంకనందినీ పరిణయకర్త పై విషయాన్ని ఏమాత్రం మార్పు చేయకుండా ఆరు పద్యాలలో మొత్తం విషయాన్ని చెప్పాడు. చేమకూర



వేంకటకవి “అగస్త్యవటం దగ్గర నుండి మొదలు పెట్టి బివర పదమూడవనెల పాండ్య మండలాఖండలుండగు మలయధ్యజుండేలు పురంబు జేరం బోయిన”- (పి.వి.1-193) అని ముగించగా తాలాంకనందినీపరిణయకర్త కూడా

“తత్త్వదేశంబునదగునగస్త్యవటంబు”(తా.ప.1-201) అని ప్రారంభించి.

“పదయుమూడవ నెలకు నప్పాండుసుతుడు
 మహిని మలయధ్య జుండేలు మణిపురమ్ము
 చెంత”.....”-(తా.ప.1-207)

అనే పద్యంతో ముగించి విజయవిలాస కావ్యాన్ని తు.చ. తప్పకుండా అనుసరించాడు. తాలాంకనందినీపరిణయకర్త విజయ విలాస కావ్యాన్ని మూలంగా ఏర్పరచుకొన్నట్లు పై విషయం తెలియ పరుస్తుంది.

విజయవిలాసంలోని అర్జునుడు మణిపురం ఉద్యానవనంలో చిత్రాంగదను చూసినపుడు -

ఈ వెలంది యొడల్ పైడిలో వెలంది,(పి.వి.1-195)

వాలెఱకు నమ్మతమే తుం”(పి.వి.1-196)

కన్నె నగుమోము తోడం”(పి.ఇవ.1-197)

కమల, నుజ్జగించుం(పి.వి.1-198)

చెండ్లా గుబ్బలు? జాళువా తళకులా చెక్కిళ్ళడాల్? సింగిణి” (పి.వి.1-199) అనే ఐదు పద్యాలలో వర్ణిస్తాడు.

ఈ అయిదు పద్యాల సారాంశాన్ని తాలాంకనందినీపరిణయకర్త చాలా అనుకరణ నేర్పుతో -

“రంగదనంగ మంగళతురంగి మెఱుంగుల మేలితాపి సం

పంగివిలోల లోచన విభంగిత బాలకురంగి మోహనా

పాంగి కళానుషంగి రుచిరాట్టితరంగి మనోహరాంగి వి

త్రాంగద.....”-(తా.ప.7.208) అని వర్ణిస్తాడు.

చేమకూర వేంకటకవి చిత్రాంగద నడుమును, నడకను వర్ణిస్తూ -

“హరిపతి నడుమునకోడెన్

గరుపపు నడకలకునోడెగజపతియింకనీ

నరపతి లోనగుటరుదే

వరవర్ణిని మెఱుంగు వాడి వాల్యాపులకున్”(పి.వి.2-17)

ఈ పద్యంలో చిత్రాంగద నడుము సింహానడుము కన్నా సన్నమని, ఆమె నడక ఏనుగు నడకకన్నా రీవిగా ఉందని వర్ణించాడు. ఆ పద్య మానసపుత్రిక అన్నట్లు -

“పడతి నడకకు మును గజపతి నోడె

హరిపతియు నూక్ష్మ మధ్యమంబందునోడె

నుడతి మెఱుగైన వాడి వాల్యాపు తూచ్చ

లరసి నరపతి లోఁబడుటబ్బురంబె”(తా.ప.1-110)

అనే పద్యాన్ని తాలాంకనందినీపరిణయకర్త చెప్పాడు.

విశారుడుడు పాండ్యరాజు దగ్గరకు వెళ్ళి అర్జునునికి చిత్రాంగదనిచ్చి వివాహం చేయమనే టప్పుడు వేంకట కవి

“అవనితలేంద్ర, మావిభుని హర్షమదేమని విన్నవించు సం



స్తవమొనరించిరింతపడి.....”-(వి.వి.2-5). అనే పద్యం చెప్పాడు. ఈ పద్యంలో విశాఖుడు అర్జునుడు చిత్రాంగదను వివాహం చేసుకోవాలని ఉవ్వెళ్ళూరుతున్నాడని చెప్పాడు. ఇదే విషయాన్ని ఇదే సంద్యంలో తాలాంకనందినీపరిణయకర్త చేమకూర వేంకటవిలాగానే చెప్పాడు.

“పనిచిన నాతడర్థజని పాండ్యపతింగని బల్కెపాండుభూ
 జనపతిసూనుండర్జునుడు చక్కని నీ తనయన్

.....”(తా.ప.1-212) అనే పద్యంలో చెప్పాడు. ఈ పద్యం చేమకూర వారి పద్యానికి భావానుకరణగా కనిపిస్తుంది.

అర్జునుడు, చిత్రాంగదల వివాహం జరిగే సమయంలో చేమకూర వేంకట కవి చెప్పిన పద్యాన్ని తాలాంకనందినీపరిణయకర్త దాదాపుగా అనుకరించి రాశాడు.

“నలుగడ హ్యవ్యాద్య నటనంబొలయుం గవురంపుటారతుల్
 వెలయ ద్విజుశుతుల్ చెలంగ విప్రవధూశుభగానలీలశో
 భిలంగ వివాహవేదికకుఁ బెండ్లి కుమారుడు వచ్చెనిట్లు లా
 వలనల పెండ్లి కూతురును వచ్చె రణచ్చరణాంగదంబులన్”(వి.వి.2-15)

తాలాంకనందినీపరిణయకర్త ఇలా రాశాడు.

“వరున నవహ్యద్య శుభవాద్యములెల్లడ నిండి మ్రోయక
 పురంపు మెఱుంగుటారతులు పుణ్యవధూజనులీయ, వృద్ధ భూ
 సురవరులాగమ ప్రథిత నూక్తులదీవనలీయ పాండ్య భూ
 పరసుతకుం గిరీటికి వివాహమొనర్చి రీతి ప్రమోదులై”(తా.ప.1-216)

వేంకటకవి పెండ్లి మండపానికి పెళ్ళికుమారుడు, పెండ్లికూతురు వచ్చిన విధానాన్ని చెబితే తాలాంకనందినీపరిణయకర్త అర్జున చిత్రాంగదలకు పెళ్ళిచేశాడు. ఆ తేడా మినహాయిస్తే వేంకటకవి పద్యానికి, భావానికి “ఈ వరుసన హ్యద్య” అనే పద్యం నకలుగా కనిపిస్తున్నది.

చిత్రాంగదతో సుఖించి, కొడుకును పుట్టించి, అతనికి పాండ్యరాజు పట్టాభిషేకం చేసి దక్షిణతీర్థయాత్రకు బయలు దేరుతాడు. అప్పుడు తాలాంకనందినీపరిణయకర్త అర్జునుడు స్నానం చేయడానికి సౌభద్ర తీర్థంలోకి దిగేటప్పుడు ఈ పద్యం చెప్పాడు.

“చనుచోపంచముఖ ప్రవాహమగుమన్ సౌభద్ర తీర్థంబు నా
 జను దత్పంచక పుణ్యతీర్థములలో స్నానంబు గావింపఁబో
 యిననందచ్చర లేపురాదినొకమౌనీశోగ్రశాపాహతిం
 ఘననక్రాకృతి బాని తైర్తికుల మ్రింగం జొచ్చుటలాంచెయున్”(తా.ప.1-22)

ఈ పద్యానికి మాతృకగా చేమకూర వేంకట కవి ఈ సందర్భంలోనే చెప్పిన

“చని యా దక్షిణ పుణ్యభూమిఁ గనుమన్ సౌభద్ర తీర్థంబునం”(వి.వి.2-42)

అనే పద్యం కనిపిస్తుంది. తాలాంకనందినీపరిణయకర్త పై పద్యంలో అప్పరసలు శాపంతో నక్రాలు అయ్యారని చెప్పగా వేంకటకవి ఆక్కడ ఉన్నముసులు అర్జునుడికి ఆ తీర్థంలో వండనంపత్సరాల నుండి మొసళ్ళు ఉన్నాయని చెప్పారని చెప్పాడు. ఈ మార్పు ఉన్న తాలాంకనందినీపరిణయకర్త ‘చనుచో’ అనే పద్యానికి ‘చనియా’ అనే పద్యం మాతృకగా కనిపిస్తున్నది.

అర్జునునివల్ల శాపివిమోచనం పొందిన అప్పరసలు ఎలా ఉన్నారో చేమకూర వేంకటకవి -

“వట్టువ గుళ్ళులుండొగరు వాతెఱయుం జిఱునవ్యు వెన్నెలల్



తొలీలు ముద్దుమోమును దళుక్కును మేను వెడంద సోగరై
 వలీలు కన్నుదోయి నిడువాలుంగురుల్ బటువుం బిఱుందులేఁ
 గుట్రునునంగావునన్ గలిగి కోమలియైన యదిమోల నిల్పినన్” (వి.వి.2-46) అని వర్ణించాడు.

తాలాంకనందినీపరిణయకర్త పై పద్యాన్ని పోలిక పద్యాన్ని రాశాడు ఆపద్యం ఇది.

“వసుంకవ పొంకముం జిగురు చాయల వాతెలున్నెరాతళు
 క్కను జిగిమేనులున్ సటువులైన పిఱుందులు ముద్దుమోములుం
 గనుంకవ మేల్పెడంగులు చొకాటపు చక్కని సోగముక్కు లిం
 పునజెలువొందు వేల్పెంబువుబోఁడుల రూపముదాల్చి నిల్పినన్” (తా.ప.1-224)

వేంకటకవి ఒక కోమలి రూపాన్ని వర్ణిస్తే, తాలాంకనందినీపరిణయకర్త ఐదుగురు అప్పురసల రూపాలను ఈ పద్యంలో వర్ణించి చేమకూర వేంకటకవిని అనుకరించాడు. వేంకటకవి చెప్పిన ప్రతివిషయాన్ని ఈ పద్యంలో తాలాంకనందినీపరిణయకర్త యథాతథంగా ఉంచాడు. ఈ పద్యమే కాదు సుభద్రకోసం మాయాతపసి వేషంలో ఉన్న అర్జునుణ్ణి వర్ణించే సందర్భంలో కూడా వేంకటకవి పద్యాన్ని చాలా బాగా అనుకరించినట్లు తెలుస్తుంది. వేంకటకవి మాయారూపంలో ఉన్న ఇలా వర్ణించాడు.

“మృగనాభి తిలకంబు బుగబుగల్లలలా
 టముపై మృదూర్వ్య పుండ్రంబుదీర్చి
 తపనీయకాశేయ ధారేయమగుకటి
 రమునఁగాషాయ వస్త్రము ధరించి
” - (వి.వి.2-81)

అనే సీస పద్యంలో అర్జునుడి యతి రూపాన్ని ఇలా వర్ణిస్తే తాలాంకనందినీపరిణయకర్త కూడా సీసపద్యంలో అర్జునుడి యతి వేషాన్ని వర్ణించాడు.

“భుగ భుగ వాసించు మృగనాభిఁదుడిచి స
 ద్విమల మేతోర్వ్య పుండ్రమును దీర్చి
 పుటపాక గాంగేయపటము నడల్పికా
 షాయ వస్త్రము గట్టిపలి ధరించి
 జ్యోవల్ల కాటం క్రియా విధాయకమైన
 దక్షిణపాణి త్రిదండ మాని
” (తా.ప.1-228)

వేంకటకవి పద్యంలో ఉన్న విషయాన్ని ఉన్నట్లు అనుకరించడమే కాకుండా వేంకట కవి పై సీస పద్యంలో తేటగీతి చివర చెప్పిన “యంగనామణిఁ గోరి సన్యాసీయయ్యె” అన్న వాక్యాన్ని తీసుకొని -

“చెలులవిడి సన్న్యసించుట
 లిలలో సహజంబుండురీ చెలికై యా
 శలఁజెంది సన్న్యసించఁగ
 నలవడియర్జునుడురైవతాదికిఁజేరెన్” - (తా.ప.1-229)

అనే కందపద్యాన్ని రాశాడు.



మునిని సేవించడానికి వస్తున్న సుభద్ర వర్తనను చేమకూర వేంకటకవి “చందురుకవి పాపద పినాళిరుచుల్ సరిగంచువీరపై”(వి.వి.2-130) అనే పద్యంలో వర్ణించాడు.

తాలాంకనందినీపరిణయకర్త

“చారునఖ ద్యుతుల్ చరుణారుణవృటల్

గలసి కుంకుమ గంధమిల కొసంగ”(తా.ప.1-239)

అనే సీసపద్యంలో వర్ణించాడు. ఈ వర్తనకు మూలం వేంకటకవి వర్తన అని స్పష్టమౌతున్నది. అర్జునుడినుద్దేశించి వేంకటకవి అన్న మునిరాజు అనే మాటకు మాయా తపస్వి అనే ప్రయోగించాడు. వేంకటకవి ప్రయోగంలో ఉన్న చమత్కారం మాయా తపస్వి అనే మాటలో లేదు. మాయాతపస్వి, అభిద, మునిరాజు వ్యంగాన్ని చూచిస్తుంది.

ఆ తరువాత అర్జునుడు శ్రీకృష్ణుని సహాయంతో సుభద్రను వివాహం చేసుకోవడం. యాదవులు అడ్డుపడితే వారిని ఓడించడం మొదలగునవి గ్రహించాడు. అయితే సంక్షిప్తంగా చెప్పి కథను ముందుకు నడిపించాడు. అయితే తాలాంకనందినీ పరిణయకర్త అంతటితో వదలక సుభద్ర గర్భం దాల్చినప్పుడు విషయాన్ని –

కలదో లేదోయను కౌసు గానంగ నయ్యె

తెప్పల నలనత గప్పుకొనియె

గులుకుఁజన్మజ్జలు వలుఁదలై మెఱుఁగెక్కె

నూగారుపై గప్పునూలుకొనియె”(వి.వి.2-228) అనే చేమకూర వేంకటకవి పద్యాన్ని అనుకరించనూ

—

“తనువు చెమర్చు సాగె. కనుదమ్ములమబ్బుఘటల్లె వేవిళ్ళు

ల్లనఁబడె చన్మొనల్ నలుపుఁ గాదగి చెక్కులు వెల్లనయ్యె భో

జనములసహ్యమయ్యెగతి జాడ్యత గాంచెను మంటి పెల్లలం

దున రుచిమించె జిట్టములు దోచెకటింబెగదయ్యెఁబోటికి”-(తా.ప.1-253)

అనే పద్యాన్ని రాశాడు. చిట్టములు అనే పదాన్నికూడా తాలాంకనందినీపరిణయకర్త ప్రయోగించాడు.

చేమకూర వేంకటకవి విజయవిలాసంలో బభ్రువాహనుని బాల్యచేష్టలను వర్ణించిన విధానాన్ని తాలాంకనందినీపరిణయకర్త అభిమన్యుని బాల్య చేష్టలను వర్ణించడానికి అనుసరించాడు. అందుకు ఉదా: –

“ తన కులస్వామి తండ్రిని సుధాంబుధిఁ బోలుఁ

బాలబుగ్గల మించులీలఁగనుటఁ

దనపితామహుని బృందారకాధిపుఁబోలు

రెప్ప వేయక చూచు రీతిఁగనుట

.....” – (వి.వి.2-40) అనే వేంకటకవి పద్యాన్ని తాలాంకనందినీపరిణయకర్త –

“కను తెప్పలిదక చక్కన జూచు తనకూర్మి

తండ్రిని గను బురంధరునిబోల్చి

పాలబుగ్గలపెంపు బరఁగను దనకుల

స్వామిబుట్టిన దుగ్గజలధిలీల

కరములల్లన జాచి కడలించు తనవంశ

కర్తయై తగు సుధాకరుని మాడ్చి



.....” - (తా.ప.1-264)

అనే పద్యాన్ని ఏమాత్రం కూడా తేడా లేకుండా రాశాడు. వేంకటకవి ఎత్తుగడ వంశపురుషుని దగ్గర నుండి మొదలు తాలాంకనందినీపరిణయకర్త తాతదగ్గర నుండి మొదలుపెట్టాడు. చేమకూరవారి పూర్వుల పోలికలను ఏవైతే చెప్పాడో వాటిని అలగే చెప్పాడు. తాలాంకనందినీపరిణయకర్త సుధాంబుధి, ఇండ్లుడు మేనమామ శ్రీకృష్ణుణ్ణి గురించి వేంకటకవి చెప్పగా తాలాంకనందినీపరిణయకర్త వాటినే చెప్పాడు. పదాలు కూడా యథాతథంగా ప్రయోగించాడు.

యవ్వనంలోకి ప్రవేశిస్తున్న అభిమన్యుని శరీరంలో మార్పులు వస్తున్నాయి. అంతకుముందు లేని కొత్తకొత్త మార్పులు వస్తున్నాయి. ఆ మార్పులను -

కెమ్మెలితేనెకై గ్రమ్మిన చిన్న చీ
 మలలీల నును మినములు జనించె
 లలి చెక్కులఱవందరుల గప్పుకప్పునా
 గకమై బవిరిగడ్డమదనర్యె

.....” - (తా.ప.2-62) అనే పద్యంలో వర్ణించాడు. దీనికి మూలంగా విజయ

విలాసంలోని ఈ పద్యం కనిపిస్తుంది.

“చిలుకల కొల్మి కన్యోనియెఱేరలఁగొల్పఁగ రాని కన్నులున్
 మొలకమెఱుంగ నీలముల ముద్దుల గాఱునొయారి మీనముల్”(వి.వి.2-21)

అభిమన్యుడు శశిరేఖ అవయవాలను గుర్తుకు తెచ్చుకొంటూ వాటిని న్యరిస్తూ, వర్ణిస్తూ ఉంటాడు. ఆ సందర్భంలో తాలాంకనందినీపరిణయకర్త -

“అలరంభాకృతులీతొదల్వ్యమల హేమాకారమీమేను మం
 జులనాసాపుటమాతిలోత్తమలనత్ స్పూర్తుల్ సుధల్ జిల్కుచూ
” - (తా.ప.2-127)

అనే పద్యాన్ని చెప్పాడు. ఈ పద్యాన్ని వేంకటకవి పద్యం చదివి రాసి ఉంటాడు. ఆ పద్యం -

“బంగరు బొంగరాల పరిపాటి చనుంగప మీల నూత
 త్కుంగసుడోయి, చండ్రు ప్రతికోటి మొగంబెలదేఁటి ధాటిక
” - (వి.వి.2-215)

వేంకటకవి చిత్రాంగద అవయవాలను, వాటి పోలికలను చెప్పంటే తాలాంకనందినీపరిణయకర్త శశిరేఖ అవయవాలను వాటి ఉపమానాలను చేస్తున్నాడు. చేమకూరవారి ప్రభావం ఆ పద్యంలో కనిపిస్తుంది. ఆ శశిరేఖను తలుచుకొంటూ ఆమెను పొందినప్పుడు, అవయవాలను తాకినప్పుడే తగిన ఫలం లభిస్తుందని అభిమన్యుని చేత సీనపద్యంలో చెప్పించాడు.

“ఘన సంపదలను నెనసీయున్న ఫలంబు
 పడఁతిపెన్నెఱలు జేపట్టినపుడు
 నతులరాజాభిధానత గల్గిన ఫలంబు
 చెలియమోమున మోముఁజేర్చినపుడు
 హితవృత్తి కువయంబేలగోరు ఫలంబు
 కన్నెకన్నులు ముద్దుగొన్నపుడు



.....” (తా.ప.2-128)

పై పద్యానికి మాతృక -

కలిగెఁబో యీ యింతి కులుకు గుబ్బులఁ జూడ
 శీతశైలాదుల సేవఫలము
 కలిగెఁబో యీనతి వకుల యందముఁజూడ
 గంగాతరంగముల్ గన్న ఫలము
 కలిగెఁబో యీరామ కనుబొమల్యుండంగ
 మునుధనుస్మిటిలో ముసుఁగు ఫలము

.....” - (వి.వి.2-111) అనదగిన చేమకూర వేంకట కవి పద్యం.

సుభద్రను చూసిన అర్జునుడు ఆమె అవయవ సందలను చూసినప్పుడు తాను సేవించిన యాత్రాఫలం దక్కిందని చెప్పాడు. అదేవిధంగా విరహంలో ఉన్న అభిమన్యుడు శశిరేఖ అవయవాలను పొందినప్పుడే రాజత్వం ఫలిస్తుందని చెప్పాడు. రెండూ శృంగార రసపోషణకు అలవాలమైన పద్యాలే. చేమకూరవారిని అనుకరించినట్లు తెలుస్తుంది. చేమకూర వారు ఒక పద్యం రాస్తే అలాంటినవి తాలాంకనందినీపరిణయకర్త రెండు రాశాడు. “ఘన సంపదలను” అనే పద్యం ఒకటి కాగా రెండోది -

“మొలక తేనియకావి యున్నఫలంబు
 కొనరి యీతని ముద్దుఁగొంగవలదె
 గబ్బిసిబ్బెఁపుగుబ్బుకవ గల్గిన ఫలంబు
 యితని సేతెద్రుచ్చి యెత్తవలదె

.....” - (తా.ప.2-115)

ఇది శశిరేఖ ద్వారా చెప్పన్న పద్యం. శృంగార రసోత్పత్తికి మూలం అయిన తన అవయవాలను పొందిన ఫలం అభిమన్యుని కూడినప్పుడే అని శశిరేఖ విరహంతో అనుకొన్నట్లు ఈ పద్యంలోని భావం. వేంకట కవి పద్యాన్ని తాలాంకనందినీపరిణయకర్త అనుకరించి అభిమన్యునితో ఒకసారి, శశిరేఖతో ఒకసారి అనిపించాడు.

అడవికి వెళ్ళిన అభిమన్యుడు శశిరేఖను మనస్సులో తలుచుకొంటూ శశిరేఖకు సంబంధించిన అనేక ఉపమానాలను ఆమెకు అన్వయిస్తూ తలుచుకొంటాడు.

“హా విమలాంగి! హా లలలన! హా మధురాధరి! హాతలోదరీ!” - (తా.ప.4-168)

ఈ పద్యం వేంకటకవి అర్జునుడు సుభద్రతో మాట్లాడే సందర్భంలో ఆమెకు పోలికగా చిగురుబోడి, జలజగంధి అనే మాటలను వాడుతూ -

“నన్ను గాంధర్వంబునను బెండ్లియాడవే
 సిగ్గేలపడియెదే చిగురుఁబోణి

.....” - (వి.వి.2-190) అనే పద్యాన్ని చెప్పాడు. ఈ పద్యంలో కవి సుభద్రకు

ఉపమానాలుగా చెప్పిన దానినిబట్టి తాలాంకనందినీపరిణయకర్త పై పద్యాన్ని రచించినట్లు తెలుస్తుంది.

శశిరేఖ విరహాతాపం తగ్గించడానికి చెలులు మున్నుఘణ్ణి, అతడి పరివారాన్ని పూజించే సమయంలో -

“మధుపకోటికి బ్రణామము జేసి దెచ్చుమ
 రందమ్ము మధురాధరమున జిల్చి
 గంధవాహికి నమస్కరణఁ జేసి గ్రహించు



పూవుగుత్తులు కుచంబులనమర్చి

.....” - (తా.ప.3-129)

అని చెప్పిన ఈ పద్యం

“బోటిమధువ్రతంబులకు దండము పెట్టి
 మకరంద మధురబింబమునఁజిల్వెఁ
 జెలి గంధపహునకంజలి చేసి నెత్తావి
 పువ్వుగుత్తులు రోజముల నమర్చె

.....” - (వి.వి.3-39) అనే వేంకటకవి పద్యాన్ని అనుకరించి వరుసక్రమంలో ఏ

విషయాలను చెప్పాడో వాటిని అలాగే తాలాంకనందినీపరిణయకర్త ఉంచాడు. వేంకటకవి పద్యం చివర ‘శిశిరోపచార విధులు’ అని రాస్తే ఈయన కూడా ‘శిశిరోపచారవిధులు’ అని తేటగీతి చివర రాశాడు.

వీరహతాపం తీర్చడానికి చెలికత్తెలు శరీరానికి చందనం రాయగా శరీరంపై వేడి వల్ల చందనం పెట్టిపోయిందని విజయ విలాస కర్త చేమకూర వేంకటకవి కింది పద్యాన్ని చెప్పాడు.

“అంగన గుబ్బు చన్మోటుఁగుటందపు మేలి పసిండికుండలం

బొంగఁదొడంగె.....”-(వి.వి.3-41)అనే పద్యాన్ని ఆధారం చేసుకొని

తాలాంకనందినీపరిణయకర్త -

“సరసిజనేత్రలింతియుపశాంతికినై శిశిరోపచారమీ

కరణి యొనర్చుఁగా నురభీగంధము పెట్టి పరాగమైధరం- (తా.ప.3-132)

ఈ పద్యాన్ని చెప్పాడు.

పై పద్యం చేమకూర వేంకటకవి చమత్కారంలా లేక పోయినా అనుకరణలో దాన్ని పోలి ఉందని చెప్పవచ్చు. మన్యుడుణ్ణి చేమకూర వేంకటకవి ‘పచ్చిపరకాఁగద’ అని పురకల్లో చేరిస్తే తాలాంకనందినీపరిణయకర్త “ప్రబలకందర్ప బహదురీపాదుషాహి” - (తా.ప.3-114) అని పేర్కొన్నాడు.

శశిరోఫ విరహాన్ని తమకూతలతో అధికం చేస్తున్న చిలుక, కోకిల, తుమ్మెద, నెమళ్ళు మొదలైనవాటిని చెలికత్తెలు దూషిస్తారు. తాలాంకనందినీపరిణయకర్త ఆ విషయాన్ని ఈ కింది పద్యంలో పేర్కొన్నాడు.

“సీ || నిను సంకెలల్యెయ నిలుపక మిన్నంట

నెగసిపోయెదవేమి పోగరు జిల్క

నీయిల్లు మొదలరిబోయిన కనులెత్త

గొని చూచె దదియేమె కోకిలలు” - (తా.ప.3-161)

అనే సీసపద్యంలో ఒక్కొక్క పక్షిని ఒక్కొక్క పాదంలో దూషించారు. ఈ పద్యం

“కల్లరి త్రాఁచు నిప్పుకలు గైకొనుకేకి చకోరపాలికిం

జెల్లినఁ జెల్లుగాక, నరసీజ బినంబులిగుళ్ళువేసి భా” - (వి.వి.3-57)

అనే చేమకూర వేంకటకవి పద్యాన్ని గుర్తుకు తెస్తున్నది. వీరహంతో ఉన్న సుభద్రకు నెమళ్ళు, చిలుకలు, హంసలు, కోకిలల అరుపులు విరహాన్ని రెట్టింపు చేస్తున్నాయని ఈ పద్యంలో చెప్పాడు.



ఈ విధంగా తాలాంకనందినీపరిణయకర్త విజయవిలాస ప్రబంధం నుండి పద్యాలకు పద్యాలను, సన్నివేశాలకు సన్నివేశాలను అనుకరించాడు. సుభద్రార్జునులు చిలుకను ఆధారంగా చేసుకొని మాట్లాడే సందర్భాన్ని చూసి తాలాంకనందినీపరిణయకర్త ఏకంగా చిలుక దూత్యాన్ని చెప్పినట్లుతోస్తుంది. వివాహ వర్జన చేసేటప్పుడు విజయ విలాసకావ్యాన్ని ఎక్కువగా అనుకరించినట్లు స్పష్టంగా తెలుస్తుంది. పడక గది దగ్గర నుండి శోభనం వరకు పూర్తిగా విజయవిలాస కావ్యాన్ని అనుసరించినట్లు కనిపిస్తుంది.

తాలాంకనందినీపరిణయ కావ్య నిర్మాణానికి విజయవిలాసం ప్రేరణ. ప్రబంధంలోని పద్య చమత్కారం విజయవిలాసం ఆధారంగానే పోషించాడు. ప్రతి పద్య చమత్కృతి విజయవిలాసంలో కనిపిస్తుండగా తాలాంకనందినీపరిణయకర్త కావ్య ప్రారంభంలో తన కావ్యం చమత్కారయుతంగా ఉంటుందని పేర్కొన్నాడు. అందుకు తగినట్లుగానే చాలా చమత్కారయుతమైన పద్యాలను రాశాడు.